

REMARKS BY THE AGRICULTURAL DEPARTMENT, BENGAL.

1	2	3	4	5	6	7	8
DISTRICT.	Sub-division.	Total area of sub-division in square miles.	Total area estimated to be under cultivation in square miles.	Estimated area under winter rice, anna or rhyza, in square miles.	Estimated outturn of this year's winter crop expressed in annas.	Outturn of winter rice of previous year expressed in annas.	
Patna	Sudder	617	467	216	14 annas	10 annas	The rainfall in the Sudder sub-division was seasonable and sufficient. In July there was a slight deficiency (5.81 inches against a normal 11.79 inches), but the fall still sufficient for rice cultivation. A bumper crop would be reaped but for the fact that rain withheld altogether from the 24th of September to the 24th of October, i.e., during the <i>hafiz</i> , when it was urgently wanted. A 12-anna crop is a reasonable estimate.
	Dinapore	145	116	86	11 "	5 1/2 "	In the Dinapore sub-division some damage was done by floods. The rainfall appears to have been slightly deficient in May—7.4 inches against 1.61 inches. This may have affected the outturn to a slight extent. There was no rain during the <i>hafiz</i> , which must have done some damage to the outturn, but the Collector does not state any fact. Taking the above into consideration, viz., damage by flood, slight deficiency of rainfall in May, and drought in October, a 12-anna crop, as estimated by the Collector, may be accepted.
	Bach	838	525	90	13 "	3 "	In the Bahar sub-division the conditions of rainfall were not altogether favourable. In August and September the fall was much below the average, only 11.56 inches against an average of 17.93 inches. In October want of rain was beginning to be felt, but timely showers fell on the 8th and 11th of the month. The Collector's estimate for this sub-division is a 14-anna crop.
	Behar	793	578	403	11 "	6 "	In the Behar sub-division the season was not altogether favourable; the fall was slightly deficient in May, and also in September and October. During the two latter months, 5.48 inches and 6.35 inches were recorded at Behar against the corresponding averages of 6.38 and 3.96 inches respectively. The drought which occurred during the <i>hafiz</i> was, however, partially relieved by rain on the 11th of October. The conditions of rainfall, so far as they can be judged from the meteorological returns, were only slightly, if at all, more unfavourable in the Behar than in the Bahar sub-division. The Collector's estimate is, however, 11 annas for the Behar sub-division, which is 2 annas less than in the Bahar sub-division.
	District Total	2,079	1,573	794	12 annas	6 annas	The Collector's first estimate for the whole district of Patna was a 12-anna crop; his present return is 12 annas, which may be accepted.
Gya	Sudder	1,830	1,434	948	19 annas	6 annas	Taking the district as a whole, the rainfall was deficient in May (7.30 inch against 17.4 inches). This deficiency affected the rice crop to a certain extent. Again there was no rain during the <i>hafiz</i> . Under the circumstances, a 12-anna crop, as estimated by the Collector, may be expected.
	Aurangabad	1,246	747	336	12 "	8 "	
	Nowda	1,020	765	373	14 "	7 "	
	Jehanabad	697	563	325	12 "	4 "	
	District Total	4,792	3,449	2,075	12 to 13 annas	6 annas	
Shahabad	Arrah	813	778	339.25	14 annas	12 annas	The rainfall was deficient throughout the district in May and the early part of June, but the want of rain at sowing time is noticed by the Collector only in respect of Arrah and Bhabua sub-divisions. Again, in the latter part of September and in October there was no rain in most parts of the district. About an inch of rain was, however, recorded at Arrah, and a little less than half an inch at Buxar. This probably prevented any loss of crop in the Arrah sub-division. No rain fell at Bhabua till the 22nd of October. The Collector's estimate of a 14-anna crop for the entire district may be accepted.
	Buxar	626	553	282	14 "	12 "	The rains which fell in the 4th week of October and early in November appear to have benefited the crop. In the middle of November, the rainfall exceeded the average at many stations, but was not so heavy as to injure the crop. It is probable that the late varieties of rice which were yet green and fresh were benefited.
	Bhabua	1,391	976	438	14 "	19 "	
	Sameram	1,403	687	374	14 "	10 "	
	District Total	4,305	3,091	1,512.88	14 annas	11 annas	
Darbhanga	Sudder	1,322	929	555	17 annas	6 annas	A 17-anna crop is expected in this district. The season was, as the Collector observes, very favourable to the rice crop excepting during the <i>hafiz</i> , when rain was wanting. Some rain fell, however, in the Sudder, Tajpore, and probably in the Madhubani sub-divisions early in October. The abnormal rains which fell in the middle of November over Orissa and Central Bengal were practically not felt in North Behar.
	Tajpore	764	649	211	16 "	10 "	
	Madhubani	1,319	1,035	719	18 "	6 "	
	District Total	3,395	2,603	1,515	17 annas	7 annas	

The rainfall in May was deficient (41 inch against 50 1/2 inches). The Collector does not notice whether this affected the rice crop in any way. Subsequently the rainfall was sufficient, and even in excess of the normal till the third week of September, since which time there was no rain till the middle of November. The absence of rain during the *hazira* has affected the crop throughout the district. The damage was further aggravated by floods in the Sudder and Hajipur sub-divisions. Leaving out of consideration the deficiency in May, which cannot do much harm if closely followed by sufficient rain in June, the rainfall was wholly favourable, and a full average, if not a bumper crop would have been reaped but for the failure of *hazira* rain. The Collector's estimate of the crop at 14 annas appears reasonable. There was very little rain in the middle of November (11 inch), and it cannot have affected the crop in any extent.

The conditions of rainfall in Saran were very similar to those in Monferrpur. The rain which fell in the third week of November appears to have done good to the rice crop, as the Collector's present estimate is a full 16-anna crop.

The conditions of rainfall in Champaran were similar to those in the two preceding districts. In August, however, the fall was short of the average (6.27 inches against 12.13 inches). This would appear to have interfered with transplanting operations, but no mention of this is made in the reports. Want of rain in October was greatly felt. The Collector's estimate of a 16-anna crop seems to be a little above the mark.

The rainfall in this district was very favourable except at the close of the season. In the last week of September and the whole of October, there was no rain in the district with the exception of Begusarai, where a slight fall (4.5 inch) on the 11th and 12th of October must have done good to the crop. The Collector estimates the outturn at 16 annas in this sub-division, and 15 annas and 14 annas respectively in the Sudder and Jamui sub-divisions, the average for the whole district being 14 annas. The fall in November was very slight—only 12 inch.

In South Bhagulpore, including the Sudder and Banka sub-divisions, the Collector's estimate is an 11-anna crop. The short harvest is attributed by him to deficiency of rainfall at the time of transplanting. There was a deficient fall in August (6.67 inches against 12.23 inches), which must have affected the crop to a certain extent; but as it was preceded by good rain in July and followed by a copious fall in excess of the normal in September, the loss on this account could not have been as high as 5 annas. There was general absence of rain in the latter part of September and in October, and to this cause the short outturn is mainly due.

In North Bhagulpore, including the Madhepura and Soopole sub-divisions, the fall was abundant in May, but considerably in excess of the normal in June, July, August and September. To this excess the Collector attributes some loss in the Soopole sub-division. In October the fall was sufficient in the Madhepura sub-division, but very deficient in Soopole. A 16-anna crop, as estimated by the Collector, may be reaped in Madhepura, but it may be doubted whether a 14-anna crop will be reaped in Soopole.

The rainfall was favourable at every stage of paddy cultivation. The general absence of rain during the *hazira*, combined of from most districts of Behar, was not felt in Purneah. In the Sudder sub-division loss to the extent of 4 annas is said to have been done by floods on the other hand, early floods did good to the crop in the Arraiah sub-division. No rain fell in November in this district. The outturn for the whole district is estimated at 15 annas.

The rainfall appears to have been very deficient from May to August, only 70 inch being recorded in May against a normal 4.3 inches, and only 18.7 inches in July and August against 23.33 inches. Although the fall in September was in excess of the normal, the deficiency in the previous months must have seriously affected the crop. The Collector, however, makes no remarks on this point, and estimates the outturn at 16 annas.

Monferrpur ..	1,318	3,903	2,47,97	1,588-13	14 annas	13 annas	5 annas
Hajipur ..	771	529-6		204-31	14 "	14 "	5 "
Shamachi ..	1,014	779-64		481	13 "	13 "	4 "
District Total	3,903				14 annas		About 7 annas ..
Saran ..							
Sudder ..	998	849		217	16 annas		8 annas
Sewan ..	883	693		255	16 "		8 "
Gopalingunge ..	771	563		229	16 "		13 "
District Total	2,652	2,105		711	16 annas		10 annas
Champaran ..							
Motihari ..	1,318	1,422		369	16 annas		6 annas
Bettiah ..	2,013	1,490		760	16 "		7 "
District Total	3,331	2,912		1,059	16 annas		6½ annas
Monghyr ..							
Sudder ..	1,559	1,491		430	12 annas		8 annas
Bagnawal ..	769	577		23	16 "		8 "
Jamui ..	1,303	1,002		760	14 "		9 "
District Total	3,631	2,730		1,119	14 annas		About 8 annas ..
Bhagulpore ..							
Sudder ..	998	655		250	11 annas		7 annas
Banka ..	1,185	888		687	11 "		7 "
Madhupura ..	872	569		239	More than 16 annas		8 "
Scoopole ..	1,273	955		478	14 annas		6 "
District Total	4,328	3,107		2,054	More than 13 annas		7 annas
Purneah ..							
Sudder ..	2,572	1,929		613	12 annas		10 annas
Kishengunge ..	1,349	1,005		502	16 "		8 "
Arrariah ..	1,014	709		260	18 "		8 "
District Total	4,935	3,644		1,615	15 annas		9 annas
Maidah ..							
Whole district	1,902	1,268		450	16 annas		10 annas

1	2	3	4	5	6	7	8
District.	Sub-division.	Total area of sub-division in square miles.	Total area estimated to be under cultivation in square miles.	Estimated area under winter rice, wheat or other crops in square miles.	Estimated outturn of this year's winter rice crop expressed in annas.	Outturn of winter rice of previous year expressed in annas.	REMARKS BY THE AGRICULTURAL DEPARTMENT, BENGAL.
Southal Pergunahs	Dumka	1,429	708	324	15 annas	...	The rainfall was sufficient and seasonable throughout. In August there was a slight deficiency (5.41 inches against 12.79 inches), but in July and September there was excess of rain. The Deputy Commissioner's remark that the rice crop has suffered from deficiency of rain after transplantation is not borne out by the records of rainfall. In October the rainfall closely agreed with the normal. The Collector estimates the yield at 14 to 15 annas.
	Begunur	906	329	108	16 "	...	
	Goida	908	676	281	15 "	...	
	Rajmahal	746	335	409	16 "	...	
	Jamtara	696	348	190	13 "	...	
	Pakour	683	311	410	16 "	...	
District Total		5,664	3,037	1,632	14 1/2 annas	12 annas	
Cuttack	Sudder	989	533	419	16 annas	8 annas	The rainfall appears to have been very seasonable. In September the fall was apparently deficient (5.04 inches against 9.23 inches), but the deficiency was in the latter half of the month when rain was not required. The rainfall between the 14th and 21st November was abnormally heavy, and a storm occurred on the 28th, which did some harm to gauru rice, but the injury was not serious. In August, the Superintendent of the Tributary Mohals estimates the outturn at 12 annas.
	Banki	116	82	28	16 "	8 "	
	Kendrapara	1,428	801	640	18 "	10 "	
	Jajpur	1,104	500	430	16 "	7 "	
	Angul	...	...	...	...	...
	District Total	3,633	1,886	1,537	15 annas	About 8 annas	
Balasore	Sudder	1,128	670	380	8 1/2 annas	9 annas	The two sub-divisions of this district have differed greatly in respect of rainfall. In the Bhadrach sub-division, the season was altogether favourable, and a full average crop would be raised were it not for the occurrence of a cyclone on November 28th. In the Sudder sub-division, on the other hand, the fall, as the Collector remarks, was singularly deficient in the period from June to September, as the following figures still show:—
	Bhadrach	908	720	380	13 1/2 "	10 "	
	District Total	2,056	1,390	1,160	About 11 annas	About 10 annas	
	Sudder	1,259	720	508	14 annas	12 annas	
	Kloorda	897	414	652	14 "	5 "	
	District Total	2,156	1,134	1,160	14 annas	10 annas	
District Total		5,692	3,040	1,720	14 annas	10 annas	

Actual fall.	Inches.	Normal fall.	Inches.
June	8.71
July	15.93
August	12.78
September	12.03
	48.95

Under the circumstances a better crop than 11 annas, as estimated by the Collector, cannot be hoped for. During the November cyclone, 4.53 inches of rain fell in three days. This damaged the crop to the extent of 2 to 3 annas; so that in this sub-division it may be apprehended there may be lightness. Last year also the crop was a short one (9 annas).

The rainfall was very similar to that of Cuttack. In May the fall was somewhat deficient and late, but the Collector remarks the deficiency was made up by good rainfall afterwards. The excess of rain recorded in October (12.98 inches against 7.42 inches) affected the early varieties of paddy to some extent as it did in Cuttack.

The Collector's first estimate was 16 annas, but the heavy cyclonic showers which fell in November seriously changed the aspect of the harvest. 14.94 inches of rain fell in this month against an average fall of 1.69 inches. The Collector reports that the loss from the heavy rains of November and from submergence of land is 3 annas. If this be correct, the outturn will be 14 annas.

DIVISION.	District.	MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.	
		Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.	Normal average.	Actual rainfall.
Burdwan	Burdwan	5.61	3.59	9.25	10.92	11.80	8.43	12.36	5.90	7.87	8.50	4.16	1.77	0.42	0.76
	Bankoora	4.03	3.45	9.56	15.44	15.12	11.29	13.78	8.75	8.65	8.96	3.77	3.61	0.35	3.85
	Beerbhoom	5.40	4.15	9.10	12.25	12.85	10.90	13.67	8.90	9.16	9.07	3.41	0.85	0.21	3.45
	Midnapore	5.65	2.45	9.69	9.58	18.76	8.23	13.25	12.00	8.85	7.14	5.26	3.60	0.48	4.24
	Hoochly	5.34	1.75	9.75	11.75	12.74	9.03	14.21	8.16	8.43	6.16	4.07	3.89	0.35	2.87
Presidency	Howrah	5.81	3.08	9.45	13.74	13.18	14.90	14.28	12.30	8.64	5.05	3.65	5.82	0.43	2.26
	24-Pergunnahs	5.79	3.22	9.85	14.84	12.97	11.80	13.72	10.30	9.62	7.47	4.46	7.74	0.40	3.89
	Khoolna	6.61	6.19	12.44	12.29	13.45	10.30	12.48	9.33	9.53	7.58	4.62	10.40	0.48	3.58
	Nuddem	6.55	2.38	9.62	11.27	10.48	8.63	12.19	8.72	8.52	9.58	4.17	4.19	0.39	7.40
	Jessore	7.01	2.97	12.10	13.97	11.55	9.00	11.54	7.75	8.48	7.11	4.45	7.25	0.46	7.08
Rajshahye	Moorsheadabad	5.21	5.40	9.05	11.09	11.00	10.25	11.79	6.87	9.77	11.40	4.37	1.38	0.28	3.68
	Dinapore	6.45	0.75	13.25	17.41	12.14	10.83	11.87	9.15	11.17	17.91	3.44	1.78	0.13	0.23
	Rajshahye	6.09	1.47	10.26	15.29	11.82	11.77	11.48	5.61	11.26	10.88	4.23	1.99	0.19	2.09
	Ranapore	11.24	3.90	21.40	13.90	10.80	12.35	12.12	13.05	15.61	4.46	1.03	0.18	0.5	0.5
	Bogra	7.91	1.59	13.11	23.39	13.69	11.70	11.81	9.42	10.70	17.10	4.34	2.35	0.49	1.03
Dacca	Pabna	7.11	5.94	11.22	14.39	10.83	9.10	11.95	8.49	10.27	8.64	4.43	5.00	0.35	5.57
	Darjeeling	7.70	4.84	24.02	29.30	30.36	42.36	26.67	17.56	17.42	14.15	6.19	2.98	0.28	0.61
	Jalpiagore	11.96	6.50	29.12	33.81	20.06	38.28	25.91	23.17	23.59	20.12	5.25	1.35	0.10	0.39
	Dacca	8.70	8.16	12.91	21.52	13.84	14.39	12.38	18.31	10.05	8.21	4.61	7.37	0.61	4.53
	Furzedpore	8.80	3.30	12.61	18.19	12.49	10.74	12.08	10.90	8.68	6.21	4.24	6.52	0.44	6.35
Chittagong	Backetung	7.80	3.20	18.66	20.32	18.78	15.64	16.14	16.57	11.96	9.18	5.62	9.99	1.29	2.6
	Mymensingh	9.24	8.6	17.42	20.63	10.55	18.69	14.07	16.63	12.94	15.54	5.32	7.18	0.34	1.78
	Tipperah	10.21	6.93	17.21	18.09	15.27	10.23	16.37	7.28	11.58	9.51	5.26	8.27	0.79	2.71
	Noakholly	10.85	5.85	24.18	23.56	21.82	22.06	23.40	21.54	16.26	16.59	7.37	8.94	2.36	2.99
	Chittagong Hill Tracts	6.84	5.28	26.32	20.75	28.52	28.05	25.48	20.15	14.07	16.08	6.60	5.90	2.96	1.35
Patna	Patna	2.18	2.34	5.95	11.58	12.12	10.00	10.58	12.88	7.20	8.84	2.97	0.25	0.22	0.19
	Gya	1.74	0.30	5.92	9.29	11.83	10.96	11.71	12.29	6.90	4.45	2.58	0.35	0.23	0.24
	Sushabad	1.30	0.30	5.30	5.03	11.97	10.78	11.40	14.67	7.29	5.23	2.19	1.68	0.29	3.98
	Dumkunga	2.68	1.61	8.00	11.82	11.60	13.86	10.71	11.05	9.25	13.86	2.72	0.22	0.66	0.01
	Moaffepore	2.51	0.61	7.68	14.03	11.26	13.31	10.11	8.81	8.27	12.41	3.03	Nil	0.07	0.21
Bhagulpore	Sarun	1.92	0.90	6.39	8.95	11.41	11.85	10.21	7.58	7.68	10.00	3.74	Nil	0.14	1.04
	Champaran	2.69	0.95	8.31	17.79	12.12	20.15	12.18	6.27	9.05	13.42	3.46	0.16	0.64	0.67
	Monghyr	2.34	1.00	6.38	9.38	11.89	10.51	11.21	8.07	7.75	11.59	3.13	0.09	0.22	0.10
	North Bhagulpore	3.90	1.28	8.71	14.51	11.61	16.25	11.87	15.43	9.75	16.61	3.36	0.66	0.10	Nil
	South Bhagulpore	2.64	1.42	7.77	11.89	10.91	10.52	11.23	6.67	7.98	10.21	3.04	0.26	0.18	0.15
Orissa	Purneah	5.50	2.67	12.98	20.04	15.47	2.32	14.63	11.34	13.53	21.64	3.48	0.70	0.21	Nil
	Saldah	4.90	0.70	10.99	7.98	11.20	8.70	12.03	4.00	10.22	15.85	3.62	2.06	0.23	0.47
	South Pergunnahs	5.75	2.62	8.59	11.33	12.97	13.81	12.79	8.41	8.96	12.31	3.62	3.48	0.26	1.70
	Cuttack	3.05	3.34	9.15	13.97	12.20	14.94	12.29	12.57	9.53	5.08	5.69	8.56	1.09	9.85
	Balasore	4.95	4.29	8.25	5.97	12.29	8.63	11.77	10.76	11.12	6.35	5.26	7.23	6.92	6.66
Chota Nagpore	Pooree	2.76	1.12	7.80	13.03	10.65	11.83	11.46	18.89	9.98	9.97	7.42	12.06	2.04	14.64
	Hazaribagh	2.28	1.20	7.90	7.13	13.10	11.06	13.07	11.66	8.10	7.06	3.26	2.03	0.28	1.25
	Lardugan	2.35	1.08	7.00	7.44	12.94	8.68	12.51	12.34	8.94	8.56	2.47	3.41	0.41	0.97
	Manbhoom	3.25	1.87	8.42	10.29	11.53	10.37	12.87	7.83	7.68	7.33	3.68	1.09	0.15	2.05
	Singbhoom	4.17	1.90	8.91	16.37	14.06	8.79	13.78	12.55	8.38	2.81	2.94	5.84	0.24	2.44

**RESOLUTION ON THE ADMINISTRATION REPORT OF THE
HOOGHLY BRIDGE FOR THE YEAR ENDING
THE 31ST MARCH 1889.**

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Marine.

No. 2907Mue., Calcutta, the 30th December 1889.

RESOLUTION.

READ—

Administration Report of the Hooghly Bridge for the year ending the 31st March 1889.

Read again—

Public Works (Marine) Proceedings (A) for February 1889, Nos. 4 to 6, being the Administration Report of the Hooghly Bridge for 1887-88, together with the Resolution recorded thereon.

It was stated in the Resolution on the Administration Report of the Bridge for the last year that the Commissioners had paid off the whole of the Bridge debt due to Government. The only liability in the form of debt due from the Bridge Trust is a sum of Rs. 1,77,031, representing the portion of the capital chargeable to the Bridge in respect of the expenditure made from the proceeds of loans raised for the construction or acquisition of certain works and property designed for the joint use of the Port and Bridge Trusts. The annual charge for interest and sinking fund on this account amounts to Rs. 10,856.

2. The following table shows the actual receipts and expenditure of the Bridge during the year 1888-89, as compared with the estimated amounts, and also the actual income and expenditure of the previous nine years:—

PARTICULARS.	1888-89.		1887-88.	1886-87.	1885-86.	1884-85.	1883-84.	1882-83.	1881-82.	1880-81.	1879-80.
	Esti- mated.	Actual.									
RECEIPTS.											
Receipts from railway traffic	Rs. 1,24,973	Rs. 1,28,985	Rs. 2,91,638	Rs. 4,02,495	Rs. 3,53,210	Rs. 2,89,125	Rs. 3,79,501	Rs. 3,25,556	Rs. 3,09,038	Rs. 2,55,251	Rs. 2,49,305
Ditto local ditto	93,757	94,000	1,27,233	1,40,740	1,40,887	1,28,301	1,22,200	1,11,813	1,10,959	99,997	1,09,348
Ditto hire of steamer <i>Helvetia</i>	1,000	996	49	489	40	446	957	2,219	1,921	2,032	2,218
Receipts from hire of steamer <i>Howrah</i> or <i>Buckland</i>.	.....	27	132	.....	.....	109	.....	1,841	4,709	6,211	9,786
Interest on Government securities	26,566	26,566	24,056	42,048	20,763	22,174	22,174	21,689	12,960	11,062	11,606
Proportion of rent of Head Office	523	487	528	528	523	527	574	580	652	682	685
Sale of engines and boilers of steam ferry <i>Howrah</i>.	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,537	.....
Miscellaneous	.....	2,096	612	737	646	814	221	942	1,162	363	319
Proportion of earnings of steam-tug <i>Hetty</i>	18,000	8,615	15,038	9,303	11,102	17,372	11,088	21,641	13,256	12,636	.....
Rent of Bridge approach land	2,859	3,944	2,993	1,870	2,911	1,257	.....	.....	.....	.....	.....
Total	2,59,678	2,64,716	4,00,269	5,98,256	5,30,912	4,60,416	5,36,695	4,85,681	4,54,627	3,93,741	3,74,226
EXPENDITURE.											
Interest on loans	.....	7,629	9,486	43,989	79,839	37,082	64,984	76,970	81,186	84,519	87,822
Proportion of salaries—Control	11,071	10,200	10,308	12,866	12,333	11,459	12,018	10,402	10,550	11,668	10,733
Salaries	33,400	32,591	32,883	32,310	32,254	31,764	31,584	32,114	31,150	31,034	30,948
Working expenses	34,000	42,798	18,900	14,045	16,872	14,270	13,956	11,467	13,863	19,157	15,564
Repairs	32,500	42,617	38,962	50,073	29,213	47,509	32,187	34,157	32,412	12,515	18,295
Steamer <i>Howrah</i> or <i>Buckland</i>	18,748	19,751	14,879	16,347	16,464	16,979	13,646	14,883	19,945	23,646	13,633
Proportion of municipal taxes of officers' quarters, storeyard, and police quarters.	7,409	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	.....	7,952	5,171	8,615	9,950	10,830	8,141	1,499	1,644	1,211	1,474
Proportion of establishment, &c., of steam-tug <i>Hetty</i> .	10,300	10,560	11,052	12,231	10,632	10,607	11,384	11,299	12,664	8,369	479
Contribution for overbridge at Howrah	.....	.....	.....	.....	.....	.....	.....	.....	25,000	.....	.....
Renewals	27,000	25,694	7,846	2,415	7,908	14,623	2,469	2,674	5,648	.....	.....
Proportion of salary of Traffic Manager	4,000	3,600	4,600	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,78,919	2,04,241	1,52,907	1,87,021	2,14,925	1,90,346	1,91,721	1,94,545	2,34,152	2,00,019	1,81,286
Net revenue	.....	60,475	3,07,362	4,11,235	3,15,987	2,70,070	3,44,974	2,91,136	2,20,475	1,93,722	1,92,940
GRAND TOTAL	.....	2,64,716	4,00,269	5,98,256	5,30,912	4,60,416	5,36,695	4,85,681	4,54,627	3,93,741	3,74,226

3. The receipts from railway traffic during the last ten years are analysed in the following statement:—

	1888-89.	1887-88.	1886-87.	1885-86.	1884-85.	1883-84.	1882-83.	1881-82.	1880-81.	1879-80.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Goods at Rs. 1 per 100 mounds.	1,30,508	2,73,368	3,84,862	3,36,452	2,71,166	3,60,359	3,09,013	2,94,963	2,42,933	2,27,483
Passengers at 3 pies each	1,803	17,409	16,854	16,056	17,403	18,236	15,955	13,574	12,418	12,508
Animals	616	729	721	646	489	86	480	427	209	159
Vehicles	58	72	88	62	67	629	78	74	600	64
Total	1,38,985	2,91,638	4,02,495	3,53,210	2,89,125	3,79,501	3,25,556	3,09,038	2,55,250	2,49,305

4. Consequent upon the repayment of the debt due to Government, and the accumulation of the Reserve Fund, very important alterations were made in 1888-89 in the financial administration of the Bridge, resulting in a considerable reduction in the receipts. Previous to the 1st of April 1888, only two staples of traffic to Howrah, coal and wheat, had been exempted from the terminal charge. From that date rice, grain, pulses, seeds and salt were exempted, according to the recommendations made by the Committee appointed by Government in January 1888 to take into consideration the scale of fees and tolls to be adopted to cover the cost of the future maintenance of the Bridge. The Committee estimated that the terminal charges that would continue to be levied on the Bridge after the exemption of the above articles would bring in a revenue of Rs. 1,16,000. The actual figures given above show the income to have been Rs. 1,28,985; but the effect of the abolition was not felt during the first month of the year, as that month showed the payments to credit of the Bridge account of terminal charges levied on goods during March 1888, before the staples named above were exempted. Taking away the amount so collected in March from staples subsequently exempted, the income of the year from this source would be reduced to Rs. 1,14,728.

5. The receipts from local traffic included only the collections of the months from April to December, as the Bridge was declared free for local traffic from the 1st of January 1889.

6. There has been an increase of expenditure under the heads "Working expenses," "Repairs," and "Renewals." Before the Commissioners surrendered the income from local tolls, they considered it advisable to make provision for putting the Bridge in thorough repair, and for completing its equipment

by providing spare mooring material. A sum of Rs. 27,588 was spent on anchors and chains and charged to "Working expenses," and this accounts for the entire excess expenditure under this head; while against the grant for "Repairs," the drafts for cost of 113 out of 250 tons of Johore teak battens were charged off in 1888-89. The balance has since been paid for, and there are now in stock sufficient materials to completely renew the whole wearing surface of the Bridge. The expenditure on account of the maintenance and repair of the ferry steamer *Buckland* and the flat *Howrah* has been in excess of the average, the increase being due to the *Buckland* being fitted with steam steering gear, and the flat *Howrah* having undergone extensive repairs. The large expenditure under the head "Renewals" was due to the fact that the new pontoon provided for in the estimates for 1887-88 was not sent out until late in 1888, and the expenditure had therefore to be met in 1888-89.

7. It will be seen from the statement of receipts and expenditure given above that the net revenue of the year under review amounted to Rs. 60,475, making, with the net revenue of previous years, a total net revenue of Rs. 34,00,503, earned during the fourteen years the Bridge has been open for traffic.

8. The following statement shows how the entire net revenue has been appropriated:—

	To end of 1887-88. Rs.	In 1888-89. Rs.	Total. Rs.
Sinking fund paid to Government on the Bridge debt ...	22,41,800	.....	22,41,800
Proportion of sinking fund on consolidated loan due to Government for Head Office and officers' quarters paid to Government ...	9,888	1,045	10,933
Proportion of sinking fund on debenture loans set aside with the Trustees of the Commissioners' Debenture Loan Account ...	11,944	2,152	14,096
Reserve Fund ...	5,21,445	2,50,533	7,71,978
Contribution for the following new works as detailed in Report for 1884-85:—			
Flat <i>Howrah</i> ...	20,000		
Reserve Section ...	8,000		
Tug steamer <i>Hetty</i> ...	1,35,642		
Ferry steamer <i>Buckland</i> ...	1,23,374		
Police quarters ...	16,573		
Office machinery and tools for workshop	13,321		
Gearing for drawbridge ...	891		
Two iron buoy boats for floating fenders	2,424	.....	3,20,225
	31,05,302	2,53,730	33,59,032
Balance ...			41,471
Total ...			34,00,503

9. In the Resolution on last year's Administration Report allusion was made to some of the recommendations of the Committee appointed to consider the revised scale of tolls and fees to be levied on the Bridge, and to the orders which had been passed on the same. As mentioned, a part of the Committee's scheme was to give out of the balance at credit of the Bridge account a sum of Rs. 2,00,000 as a contribution towards the construction by the Corporation of Calcutta of a new road from the Bridge to Sealdah. This excess balance over the requirements of the Reserve Fund, which had been fixed by Government, after consultation with the Commissioners, at 5½ lakhs of rupees, was due to the continuance of the local tolls and terminal charges after the extinction of the Bridge debt, and the accumulation of the required Reserve Fund, for which purposes those tolls and charges had been framed. The debt was paid off and the fund accumulated by June 1887, but the tolls continued to be charged till the 31st December 1888. The Government of India, however, objected to this contribution, and in consequence of the orders of that Government upon this proposal the addition to the reserve shown in the foregoing statement was made. The Corporation was still of opinion that the construction of this road was absolutely necessary for the purpose of giving greater facilities to the traffic that exists between the two places. The Lieutenant-

Governor has sanctioned the construction of this road, and the Government of India have sanctioned the raising of a loan by the Corporation not exceeding 50 lakhs, by way of debenture, on the security of the rates and taxes levied under Act II (B.C.) of 1888. The improvement which such a road would effect, and the relief it would afford to the Strand Road traffic, north and south of the Bridge, to the advantage of the traffic from the jetties and wharves, were self-evident, and on a fresh representation being made to the Government of India, that Government, though refusing to sanction legislation for the purpose of enabling the Port Commissioners to contribute the sum of Rs. 2,00,000 towards the construction of the road as proposed by the Committee, raised no objection to the Commissioners lending that sum to the Corporation of Calcutta for three years, without interest, for payment of interest on the loan to be raised for the construction of the road. An Act [Act III (B.C.) of 1889] investing the Commissioners with power to lend this amount to the Corporation of Calcutta on the terms stated has accordingly been passed. The other recommendations of the Committee on tolls and fees have been adopted and approved by Government.

10. The Bridge was kept in thorough working order during the year. The new pontoon, referred to in paragraph 6, was received from England, and put together in the Commissioners' dry dock. On completion, the defective pontoon at the west side of the sixty feet opening was drawn out, and the new one fixed in position. On examination of the defective pontoon it was found that there had been no deterioration in the material, and the only cause which could be assigned for its collapse was that the work of putting the pontoons together originally in 1873-74 was distributed over different yards, and there must have been some defective work in the erection of this particular pontoon.

11. On the 13th December 1888, the Hon'ble Sir Charles Elliot, C.S.I., C.S., and Colonel R. Home, R.E., C.I.E., inspected the pontoons, superstructure, reserve section, and all spare material in stock. While expressing satisfaction at the condition in which everything was found, they expressed an opinion that provision should be made for further renewal of the pontoons. Although the one mentioned in the last paragraph was the first one to give out in fourteen years, the Commissioners have considered it advisable to appropriate annually a portion of whatever surplus revenue the accounts may show towards the purchase of new pontoons.

12. The Bridge was open for the passage of vessels on 122 occasions, including 20 special Sunday openings. The number of vessels which passed through the opening is given in the following statement:—

	1888-89.	1887-88.	1886-87.	1885-86.	1884-85.	1883-84.	1882-83.	1881-82.
Sea-going vessels ...	380	331	295	366	403	469	442	413
Inland steamers and flats ...	878	899	848	1,102	944	733	664	629
Steam tugs ...	466	397	387	406	342	361	409	359
Port Commissioners' vessels ...	29	46	56	69	56	58	42	48
Government steamers and flats ...	7	6	10	6	10	...	...	...

13. No sea-going vessels collided with the Bridge in passing through the opening, but there were 91 collisions of other vessels, as compared with 63 during the previous year. One of the most disastrous was that of the Port Commissioners' steamer *Research* which collided with the Bridge on the 25th August 1888, resulting in the loss of two lives and the total loss of the vessel. Fifteen country and cargo-boats sank after collision, and on one of these occasions there was a loss of one life. Three steam launches also collided with the Bridge, two of which sank. The increase in the total number of collisions as compared with that of the preceding year was due to the unusually heavy freshets of the year. On one occasion (August 31st) it was found impossible to open at all on the advertised day, owing to the unusual strength of the tide, the Superintendent reporting that the attempt to open on that occasion was more than running a risk, it meant almost certainty of serious damage.

ORDER.—Ordered that a copy of this Resolution be forwarded to the Bridge Commissioners for information.

Ordered also that this Resolution be published in the Supplement to the *Calcutta Gazette* for general information.

By order of the Lieutenant-Governor of Bengal,

C. W. I. HARRISON,

Offg. Joint-Secretary to the Government of Bengal.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 28th December 1889.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
<i>Western Districts.</i>			
BURDWAN DIVN.	1 Burdwan Dec. 28, '89	Nil	Weather—rather warm. Harvesting of <i>amun</i> still going on. <i>Rabbi</i> crops not very good. Sugarcane is in good condition. State of potato fair. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Burdwan 14½ Culna 13 Cutwa 14½ Rancegunge 16 } per rupee </div>
	2 Bankoora „ 28, '89	Nil	Weather—hot for the season and occasionally cloudy. Harvesting of <i>amun</i> still continues in many places. Other crops doing well. Common rice selling at 21 seers per rupee at Sudder and 17½ seers at Bissenpore.
	3 Birbhum „ 28, '89	Nil	Weather—cloudy and rather warm for the season. <i>Amun</i> nearly reaped. Sugarcane in fine order. Winter crops doing well. Rice selling at 16 seers per rupee at S. Jory and 17½ seers at Kampore Hât.
	4 Midnapur „ 28, '89	Nil	Weather—has been cloudy and heavy, and drizzling showers reported from the south. The rice harvest is still being gathered, and the outturn is good. Prices of rice:— <div style="float: right; text-align: right;"> Srs. Sudder 15 Contal 15 Tumluk 18 Ghatal 18 } per rupee. </div>
	5 Hooghly „ 28, '89	Nil	Weather—very clear. Harvesting of <i>amun</i> almost completed. Prospects of <i>rabbi</i> favourable. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Sudder 12 Serampore 11½ Jehanabad 16 } per rupee. </div>
PRESIDENCY DIVN.	Howrah „ 28, '89	Nil	Weather—cloudy. <i>Amun</i> crop is being harvested. Prospects good. Price of common rice 12 seers per rupee.
	6 24-Pergha Dec. 28, '89	Driz- zling.	Weather—fine. <i>Amun</i> cutting still going on with full vigour; outturn expected to be good. Standing <i>rabbi</i> crops doing well.
	7 Nuddea „ 28, '89	Nil	Weather—cloudy and warm. <i>Amun</i> rice has yielded a fair outturn. The winter crops are doing well.
	8 Khoolna „ 28, '89	0-18	Weather—seasonable, cloudy on two days with a little rain. <i>Amun</i> harvest continues with good outturn. The cloudy weather did not continue long enough to cause material injury to the winter crops.
	9 Jessore „ 28, '89	0-01	Weather—cloudy and hot for the season. <i>Amun</i> harvesting continues. Cold-weather crops doing fairly well. Prices of rice stationary.
RAJSHAHY DIVN.	10 Moorshedabad „ 28, '89	Nil	Weather—clear and cold. <i>Amun</i> and <i>kalai</i> are being harvested. Prospects of <i>rabbi</i> good.
	11 Dinagepur „ 28, '89	Nil	Weather—colder towards the end of the week. The harvesting of winter rice continues. Mustard and sugarcane promise well except in the Thakurgaon subdivision, where only 8 annas yield of sugarcane is expected.
	12 Rajshahye „ 28, '89	Nil	Weather—seasonable. Winter rice is being harvested with good outturn; as also <i>kalai</i> . Spring crops coming on well. Sugarcane is but an indifferent crop.
	13 Rungpur „ 28, '89	Nil	Weather—seasonable. Harvesting of <i>amun</i> still continues. <i>Rabbi</i> crops doing well. Prices falling.
	14 Bogra „ 28, '89	Nil	Weather—seasonable. Nearly half the <i>amun</i> crop has been reaped, with average outturn of 17 annas. All other crops are doing well. The price of common rice varies from 18 to 20 seers a rupee.
	15 Pubna „ 28, '89	0-04	Weather—cloudy at times. <i>Amun</i> is still being harvested; outturn fair. Sugarcane crop thin. Cold-weather crops fairly abundant. Prices still rather high.
	16 Darjeeling „ 28, '89	Nil	Weather—cold. Winter crops doing well. Outturn of <i>haimanti</i> paddy in Terai expected to be 14 annas. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Darjeeling 12 Kurseong 12 Silliguri 14 } per rupee. </div>
	17 Julpigoree „ 28, '89	Nil	Weather—clear and cool. Cutting of <i>haimanti</i> rice still going on with a favourable outturn. Prospects of other crops good. Prices have considerably fallen.

No.	District and date of return.	Rainfall at meter Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
<i>Eastern Districts.</i>			
Dacca Divn.	18 Dacca Dec. 28, '89	Nil	Weather—cool and fine. <i>Amun</i> paddy nearly all harvested; outturn on the whole good. Sugarcane and <i>rubbi</i> crops on the ground, though late, are doing fairly well. Much of these crops has been lost. Fodder is available. Prices of food-grains falling.
	19 Furreedpur „ 28, '89	Nil	Weather—rather warm for this time of year. <i>Amun</i> crop nearly harvested; outturn 14 annas. <i>Mung</i> and <i>kalai</i> almost gathered with good outturn. Other <i>rubbi</i> crops promise well. <i>Boro</i> rice is being sown.
	20 Backergunge „ 28, '89	0.44	Weather—rather warm for the time of year. Prospects of crops good. Harvesting of <i>amun</i> continues.
	21 Mymensingh „ 28, '89	Nil	Weather—seasonable. Gathering of <i>amun</i> paddy still continues. Prospects of <i>rubbi</i> crops good. Price of common rice stationary.
Chittagong Divn.	22 Chittagong „ 28, '89	0.71	Weather—cold and seasonable. Harvesting of <i>amun</i> still continues. Prices stationary.
	23 Noakholly „ 28, '89	0.12	Weather—three days were cloudy with slight rain; too warm for the season. Harvesting of <i>amun</i> continues. <i>Rubbi</i> crops doing well. Price of rice stationary.
	24 Tipperah „ 28, '89	0.08	Weather—cloudy and unseasonably warm. <i>Amun</i> paddy is still being cut. Prospects of winter crops good.
	25 Chittagong Hill Tracts „ 27, '89	0.40	Weather—cold with dense fogs during the first four days, and cloudy during the last three days of the week. Drizzling rain on the 26th. Gathering of late plough-paddy still continues. Mustard, tobacco, and chillies progressing.
	Hill Tipperah „ 28, '89	Nil	Weather—seasonable. Gathering of <i>amun</i> paddy, cotton, and oilseeds still continues. Chillies and tobacco doing well.
BEHAR.			
Patna Divn.	26 Patna „ 28, '89	Nil	Weather—cold. Harvesting of paddy still continues. <i>Rubbi</i> crops look well, but rain is wanted. Prospects of poppy favourable. Prices of food-grains almost stationary.
	27 Gya „ 28, '89	Nil	Weather—cold. Harvesting of paddy going on. Prospects of <i>rubbi</i> and poppy favourable. Food-stocks sufficient.
	28 Shahabad „ 28, '89	Nil	Weather—cold and seasonable. Reports of paddy and <i>rubbi</i> crops favourable. Sugarcane doing well. Prices stationary.
	29 Durbhunga „ 29, '89	Nil	Weather—cold nights and mornings. Harvesting of the winter rice almost completed—a crop above average. The prospects of the <i>rubbi</i> are favourable, but rain is wanted. The tobacco crop is fair. Poppy reported by the opium officer to be very promising. Common rice ranges from 19 to 23 seers per rupee.
	30 Mozufferpur „ 28, '89	Nil	Weather—unusually mild for this time of year. Poppy and <i>rubbi</i> crops promise well. Rice harvest almost completed.
	31 Sarun „ 28, '89	Nil	Weather—cold and seasonable. Prospects of <i>rubbi</i> and poppy crops excellent. Sugarcane doing well.
Bhagalpore Divn.	32 Chumparun „ 28, '89	Nil	Weather—cool and fair. Harvesting of <i>aghani</i> rice finished. <i>Rubbi</i> crops growing well; prospects satisfactory. Poppy looks healthy. Sugarcane is being pressed; probable outturn 10 annas.
	33 Monghyr „ 28, '89	Nil	Weather—cool and seasonable. Harvesting of winter rice still going on. Prospects of <i>rubbi</i> crops and poppy continue promising.
	34 Bhagulpur „ 28, '89	Nil	Weather—rather too warm and cloudy early in the week; now bright and cool. Rice harvest on low lands is closing. Sugarcane outturn only fair. <i>Rubbi</i> crops doing well, but require rain now.
	35 Purneah „ 28, '89	Nil	Weather—warm days, cold nights; clouds about. <i>Aghani</i> rice is for the most part harvested. Outturn will be about average. Mustard and <i>kurti</i> are being gathered in places. Tobacco and other <i>rubbi</i> crops doing well.
	36 Maldah „ 28, '89	Slight rain.	Weather—cold and cloudy with slight rain on two days. Harvesting of winter rice continues. <i>Rubbi</i> crops doing well. Price of rice ranges from 16 to 19 seers a rupee.
	37 Sonthal Pergah „ 28, '89	Nil	Weather—cloudy and rather warm. No rain. Paddy harvest is going on with good outturn. <i>Rubbi</i> crops doing well. A little rain wanted in Godda.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack Dec. 28, '89	Nil	Weather—cloudy for some days, but now fine. Reaping of <i>sarad</i> (late rice) continues. <i>Biri</i> is being gathered in some places.
	39 Pooree „ 27, '89	0.17	Weather—cloudy and drizzling. Harvesting of winter rice (late <i>sarad</i>) still continues. <i>Dalua</i> crop is being sown. Prices of food-grains steady.
	40 Balasore „ 28, '89	Nil	Weather—cloudy and warm. Rice harvest nearly over. <i>Rubbi</i> crops doing fairly well.
CHOTA NAGPORE.			
South-West Frontier Agency.			
CHOTA NAGPORE DIVN.	41 Hazaribagh Dec. 28, '89	Nil	Weather—cloudy for some days. Crops in good condition generally. Poppy promising. In thanas Chowparun, Chatra, and Huntergunj the outturn of paddy is reported to be from 8 to 12 annas. Wheat prospects in Chowparun are reported to be from 10 to 14 annas.
	42 Lohardugga „ 28, '89	Nil	Weather—cloudy. Harvesting of paddy still continues. Prospects of <i>rubbi</i> at head-quarters good. In south of the Palamow subdivision <i>rubbi</i> is slightly damaged by frost.
	43 Singhbhum „ 28, '89	Nil	Weather—cloudy. Crop prospects favourable. Prices stationary.
	44 Manbhum „ 28, '89	Nil	Weather—seasonable. All crops doing well.

Published for general information.

CALCUTTA; REVENUE DEPT.,
The 31st December, 1889.

P. NOLAN,
Secy. to the Govt. of Bengal.

**Results of the Meteorological Observations taken at the Alipore Observatory from
22nd to 28th December 1889.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1889.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Dec.	22nd	129.6	9.2	30.016	65.0	75.9	20.7	55.2	60.5	0.473	57.4	73	N by E, NNE, and N.	55	Nil	Chiefly clear, Δ .
"	23rd	123.2	3.1	.007	68.1	77.7	18.8	58.9	63.3	.521	60.1	77	NNE and N	71	"	Chiefly clear, Δ .
"	24th	131.8	4.5	29.968	71.8	79.6	15.4	64.2	66.4	.576	63.0	75	NE and ENE	84	"	Chiefly cloudy, o.
"	25th	109.7	Nil	.965	71.5	77.0	10.4	66.6	67.7	.628	65.4	82	ENE and E	83	0.02	Cloudy, o, g, d.
"	26th	134.5	7.0	.991	72.0	80.1	14.6	65.5	68.6	.655	66.6	84	ESE and ENE	51	0.01	Chiefly cloudy, d, Δ .
"	27th	133.5	7.6	30.032	71.9	79.6	14.8	64.8	67.8	.629	65.5	81	E by S, NNE and N by E.	56	Nil	Partially cloudy, Δ , —.
"	28th	132.8	8.9	.036	68.6	78.7	17.3	61.4	63.1	.506	59.3	72	NNE, N and NNW	75	"	Chiefly clear, Δ .

The mean pressure of the seven days 30.003
 The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 30.038

The total number of hours of bright sunshine 40.3
 The maximum possible number of hours of sunshine 75.0

The mean temperature of the seven days 69.8
 The average temperature of the corresponding period for 24 years, S.-G.'s Office 67.2
 The extreme variation of temperature 24.9
 The maximum temperature 80.1

The highest velocity of the wind in one hour 10
 The highest pressure of wind on one square foot Not measurable.

The mean relative humidity 78
 The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 71

The total fall of rain from 22nd to 28th December 1889 0.03
 The average fall of the corresponding period for 24 years, S.-G.'s Office 0.01
 The total fall from 1st January to 28th December 1889 57.47
 The average fall of the corresponding period for 24 years, S.-G.'s Office 63.24

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast; Δ dew; = fog.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;

Calcutta, the 30th December 1889.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.														
			District.	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.							
					Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.
ORISSA.	POOREE.	Pooree	30.007	30.020	—	N. Ely.	247	?	?	56.9	22nd Dec.	?	59.9	?	—	67.7	
		Gopalpore	30.004	30.034	—0.035	NNW	274	81.7	21st Dec.	60.0	21, 22	78.7	63.3	72.5	+4.2	69.5	
		False Point	30.007	30.029	—0.077	N	216	78.9	27th	54.0	21st	76.9	63.3	70.1	+4.8	69.2	
		Cuttack	29.972	30.057	—0.048	North-easterly.	50.3	84.8	27th	56.8	21st, 22nd Dec.	81.9	64.4	73.2	+4.5	68.3	
SOUTH-WEST BENGAL.	BALASORE.	Balasore	30.017	30.078	—0.035	NNW	91.0	81.3	25th	50.5	21st	79.4	58.9	69.1	+4.7	63.6	
		South-West Midnapore	Saugor Island	30.030	30.067	—0.046	NNE	216	81.7	25th	50.3	22nd	77.1	63.9	70.5	+5.3	62.6
		South 24-Pergunnahs	Midnapore	29.917	30.073	—0.043	N	62.1	81.3	25th	52.2	21st, 22nd Dec.	80.0	59.3	69.7	+4.4	64.5
		14-Pergunnahs	Calcutta	30.047	30.069	—0.038	Northerly	65	80.0	27th	53.3	21st	77.4	60.9	69.2	+5.5	65.5
SOUTH-WEST BENGAL.	BURDWAN.	Burdwan	29.964	30.071	—0.046	Calm	27.3	82.1	26th	53.3	21st	79.6	60.7	70.2	+6.0	63.4	
		Bankoora	29.746	30.065	—0.040	Calm	51.3	80.6	27th	50.7	21st	78.4	59.0	68.7	+5.0	63.0	
		Beerbhoom	Raneegunge	29.746	30.099	—0.026	NW	45.5	80.9	27th	51.9	21st	79.6	58.6	69.1	+5.6	62.3
		West Burdwan	Herhampore	30.009	30.079	—0.032	N	34.2	89.1	26th, 27th Dec.	54.2	21st	78.1	59.6	68.8	+5.2	61.8
SOUTH-WEST BENGAL.	MOORSHADABAD.	Moorshadabad	30.009	30.079	—0.032	N	34.2	89.1	26th, 27th Dec.	54.2	21st	78.1	59.6	68.8	+5.2	61.8	
		Nuddea	Krishnaghur	30.036	30.105	—0.010	NNW	55.3	81.3	26th	50.9	21st	78.8	59.1	68.9	+5.4	64.7
		Jeasore	Jeasore	30.024	30.159	—0.035	Calm	50.0	81.2	25th	54.5	21st	78.8	61.0	70.3	+6.5	64.7
		Khoolna	Chittagong	29.947	30.040	—0.035	North-easterly	37.2	84.1	24th	56.1	21st	81.7	64.1	72.9	+7.2	68.0
EAST BENGAL.	CHITTAGONG.	Chittagong	29.947	30.040	—0.035	North-easterly	37.2	84.1	24th	56.1	21st	81.7	64.1	72.9	+7.2	68.0	
		Chittagong Hill Tracts	Demagiri	30.043	30.056	—0.008	NNE	41.1	81.8	24th Dec.	55.1	23rd	78.4	60.2	69.3	+5.0	67.7
		Backergunge	Barrisal	30.003	30.050	—	North-easterly.	76.9	83.0	25th	55.0	21st	79.8	61.7	70.7	—	69.0
		Noakholly	Noakholly	30.003	30.050	—	Calm	37.9	81.5	25th	55.5	22nd	76.3	61.1	68.8	+5.4	65.5
EAST BENGAL.	FURTEEDPORE.	Furteedpore	30.031	30.074	—0.012	N & E	64.0	84.6	24th	55.3	22nd	80.6	61.3	71.0	+8.1	65.9	
		Dacca	Dacca	30.030	30.054	—0.031	N	34.0	83.4	24th	55.0	22nd	79.9	59.9	69.9	+5.4	63.8
		Tipperah	Commillah	30.015	30.052	—0.030	N	34.0	83.4	24th	55.0	22nd	79.9	59.9	69.9	+5.4	63.8
		Mymensingh	Mymensingh	30.015	30.074	—0.019	Variable	32.0	81.8	24th	55.4	22nd	79.2	58.8	69.1	+3.9	63.9
NORTH BENGAL.	BOGRA.	Bogra	29.888	30.054	—0.005	Calm	17.5	81.3	25th	53.1	22nd, 23rd Dec.	79.1	56.7	67.9	+3.8	61.6	
		Patna	Serajgunge	30.018	30.067	—0.023	North-easterly.	16.6	81.5	27th	55.9	22nd	79.0	57.8	68.4	+6.2	61.0
		Rajshahye	Rampur Beau-leah.	30.002	30.076	—0.011	N & NNE	69.7	79.9	25th	55.7	21st	77.7	55.1	67.9	+6.3	61.4
		Maldah	Maldah	30.012	30.098	—	NW	78.3	80.5	27th	50.5	22nd	78.2	55.2	66.7	—	60.6
NORTH BENGAL.	DINAPORE.	Dinapore	29.965	30.093	+0.037	North-easterly.	51.3	80.1	24th, 25th, Dec.	53.2	21st & 27th Dec.	78.7	55.1	66.9	+4.2	60.3	
		Rongpore	Rongpore	29.973	30.103	—0.010	ENE	34.5	79.5	24th	54.0	21st	78.2	55.3	66.8	+4.3	60.6
		Julpigoree	Julpigoree	29.806	30.111	—0.004	Northerly	37.0	?	?	53.9	23rd & 27th Dec.	?	55.3	?	?	58.9
		Cooch Behar	Darjeeling	29.035	—	+0.008	Variable	68.5	55.2	24th	35.0	26th	54.2	36.9	45.6	+4.8	41.6
SOUTH BENGAL.	DARJEELING.	Darjeeling	29.035	—	+0.008	Variable	68.5	55.2	24th	35.0	26th	54.2	36.9	45.6	+4.8	41.6	
		Purneah	Purneah	29.907	30.102	—0.008	Calm	26.5	77.2	25th	49.0	24th	76.1	52.3	64.2	+3.6	62.1
		Mozufferpore	Mozufferpore	29.930	30.117	—0.004	ESE	30.6	75.4	23rd Dec.	53.9	21st	77.2	54.9	66.0	+4.1	58.9
		Durbhunga	Durbhunga	29.876	30.121	+0.017	Calm	64.6	77.6	24th	47.9	21st	76.7	49.5	62.6	+3.5	53.9
SOUTH BENGAL.	CHAMPARAN.	Champaran	29.921	30.126	+0.026	Northerly	47.0	76.3	23th & 26th Dec.	50.0	27th	75.3	51.7	63.5	+5.9	60.1	
		Baran	Chupra	29.750	30.150	+0.062	SSW	111.9	79.3	21st	49.0	21st	77.5	52.6	65.1	+5.2	58.3
		Shahabad	Dahree	29.870	30.136	0	Variable	41.3	76.4	21, 24, 25, 27,,	47.4	21st	76.8	51.2	63.5	+3.7	57.9
		Shahabad	Buxar	29.905	30.118	+0.014	Calm	44.5	77.8	25th	46.3	22nd	76.0	50.1	63.3	+4.0	59.2
SOUTH BENGAL.	GAYA.	Gaya	29.723	30.127	—0.002	South-westerly.	105.0	80.3	26th	48.5	22nd	77.6	53.4	65.5	+3.5	57.4	
		Patna	Bankipore	29.952	30.127	—0.010	SW	38.5	76.8	25th	50.4	21st	76.1	53.6	64.8	+4.4	59.1
		South Bhagulpore	Bhagulpore	?	?	?	Variable	32.5	79.3	25th	49.5	21st	77.8	55.3	65.6	+5.4	67.7
		South Bhagulpore	Boonka	29.879	30.100	—	NNW	41.8	78.6	27th	48.8	21st	77.0	55.4	66.2	—	60.1
CHUTIA NAGPUR.	HAZARIBAGH.	Hazaribagh	29.622	30.122	—0.011	Calm	117.7	76.1	26th	48.5	22nd	73.9	53.4	63.6	+3.9	59.9	
		Lohardugga	Ranchee	27.554	30.102	—0.015	Calm	98.4	77.0	26th	47.9	22nd	73.7	52.9	63.3	+4.3	59.0
		Manbhoom	Manbhoom	27.554	30.102	—0.015	Calm	98.4	77.6	26th	47.9	22nd	73.7	52.9	63.3	+4.3	59.0
		Singbhoom	Cayebassa	29.203	30.109	—	Calm	27.8	81.0	27th	45.2	22nd	76.6	56.4	67.5	—	63.4

* Means of six days.

Explanation.—*Summery*.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The number are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional stations for the period in question during the past seasons in the district ending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 27th of December 1889.

					DISTRICT OBSERVATIONS.													
Average humidity at 9 A.M.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.									Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.		
			Mean for district.	Normal mean.	Since 1st of month.			Since May 15th.			Average number of rainy days.	Normal number of rainy days.						
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.								
86	5.3	0.17	0.35	0.04	0.35	0.84	-0.49	74.88	55.16	+19.72	1.5	0.1	Poorce	Poorce ...	ORISSA.			
80	4.1	0.36											Gopalpore					
88	0.1	1.04											False Point					
73	0.0	Nil	0.05	0.04	0.05	0.57	-0.52	64.24	51.54	+14.70	0.2	0.1	Cuttack	Cuttack ...	ORISSA.			
83	1.7	0.02	0.02	0.01	0.02	0.28	-0.26	49.89	52.55	-2.66	0.2	0.1	Balasore	Balasore ...				
89	5.9	0.03	0.04	Nil	0.04	0.34	-0.30	58.43	61.98	-3.55	1.0	0.0	Sankar Island	South-West Midnapore				
76	2.6	Nil	Nil	Nil	Nil	0.25	-0.25	46.29	51.09	-4.71	0.0	0.0	Midnapore	Midnapore ...	SOUTH-WEST BENGAL.			
87	4.4	0.02	Nil	0.01	Nil	0.29	-0.29	53.38	51.16	+2.22	0.0	0.1	Calcutta	24-Pergunnahs...				
79	4.3	Nil	Nil	0.01	Nil	0.19	-0.19	45.81	46.29	-0.48	0.0	0.1	Burdwan	Burdwan ...				
76	5.7	Nil	Nil	0.01	Nil	0.30	-0.30	53.88	52.28	+3.60	0.0	0.1	Bankoora	Bankoora ...	SOUTH-WEST BENGAL.			
81	4.6	Nil	Nil	Nil	Nil	0.13	-0.13	52.44	51.16	+1.28	0.0	0.0	Raneegunge	Bierbhoom ...				
92	4.1	Nil	Nil	Nil	Nil	0.14	-0.14	51.15	49.98	+1.17	0.0	0.0	Berhampore	West Burdwan ...				
84	3.4	Nil	Nil	0.01	Nil	0.14	-0.14	51.49	48.83	+2.66	0.0	0.1	Krishnagar	Moorshedabad ...	SOUTH-WEST BENGAL.			
92	4.1	Nil	0.06	0.02	0.06	0.26	-0.26	53.38	52.64	+0.75	0.4	0.1	Jessore	Nuddea ...				
87	7.0	0.07		0.05		0.56			112.92			0.1	Chittagong	Jessore Khoolna ...				
				0.08		0.55			80.69			0.1	Demagiri	Chittagong Hill Tracts	EAST BENGAL.			
91	2.9	0.22	0.24	0.02	0.24	0.43	-0.19	77.82	76.32	+1.50	1.0	0.1	Barrisal	Backergunge ...				
85	0.4	0.15	0.26	0.01	0.26	0.81	-0.55	90.29	105.81	-15.52	1.5	0.1	Noakholly	Noakholly ...				
89	2.3	Nil	0.02	Nil	0.02	0.18	-0.11	60.23	55.39	+4.84	0.3	0.0	Furreedpore	Furreedpore ...	EAST BENGAL.			
87	4.7	Nil	Nil	0.01	Nil	0.25	-0.25	74.20	59.21	+15.38	0.0	0.1	Dacca	Dacca ...				
88	1.3	Nil	0.02	0.02	0.02	0.37	-0.35	55.45	68.80	-13.35	0.2	0.1	Commillah	Tipperah ...				
91	3.0	Nil	Nil	0.01	Nil	0.15	-0.15	87.63	67.13	+20.50	0.0	0.1	Mymensingh	Mymensingh ...	EAST BENGAL.			
88	1.4	0.01	Nil	0.01	0.01	0.14	-0.13	64.81	50.89	+13.92	0.2	0.0	Bogra	Bogra ...				
94	3.0	0.13	0.08	0.01	0.08	0.11	-0.05	55.07	52.84	+2.23	1.0	0.1	Serajunge	Pubna ...				
84	1.6	Nil	Nil	Nil	Nil	0.13	-0.13	54.30	53.31	+0.99	0.0	0.0	Rampore Beaulah	Rajshahye ...	NORTH BENGAL.			
85	1.4	Nil	Nil	Nil	Nil	0.10	-0.10	39.76	53.72	-13.96	0.0	0.0	Maldah	Maldah ...				
84	0.9	Nil	Nil	Nil	Nil	0.18	-0.18	57.37	56.59	+0.78	0.0	0.0	Dinapore	Dinapore ...				
88	0	Nil	Nil	0.01	Nil	0.15	-0.15	85.16	73.69	+11.47	0.0	0.1	Rangpore	Rangpore ...	NORTH BENGAL.			
89	0	Nil	Nil	Nil	Nil	0.16	-0.16	117.13	111.19	+5.94	0.0	0.0	Julpigoree	Julpigoree ...				
65	0.3	Nil	Nil	0.01	Nil	0.29	-0.29	132.75	120.24	+12.51	0.0	0.1	Darjeeling	Darjeeling Hill Tract.				
80	0.7	Nil	Nil	Nil	Nil	0.09	-0.09	74.71	58.10	+16.61	0.0	0.0	Purneah	Purneah ...	NORTH BENGAL.			
												0.0	North Bhagulpore	North Bhagulpore ...				
			Nil	0.01	Nil	0.08	-0.08	48.66	42.57	+6.09	0.0	0.1	Mozufferpore	Mozufferpore ...				
80	0	Nil	Nil	Nil	Nil	0.08	-0.08	51.84	44.01	+7.83	0.0	0.0	Durbhunga	Durbhunga ...	NORTH BENGAL.			
89	0	Nil	Nil	0.02	Nil	0.18	-0.18	63.55	46.09	+17.46	0.0	0.1	Motihar	Chumparun ...				
69	0	Nil	Nil	0.01	Nil	0.16	-0.16	40.13	42.19	-2.06	0.0	0.1	Chupra	Saron ...				
81	0.6	Nil	Nil	0.03	Nil	0.32	-0.32	40.07	39.56	+0.51	0.0	0.1	Ochree	Shahabad ...	SOUTH BENGAL.			
83	0.4	Nil	Nil															
85	0.1	Nil											Arrah					
76	2.6	Nil	Nil	0.04	Nil	0.23	-0.23	37.07	40.86	-3.79	0.0	0.1	Gya	Gya ...	SOUTH BENGAL.			
82	0.6	Nil	Nil	0.01	Nil	0.12	-0.12	43.49	40.75	+2.74	0.0	0.1	Bankipore	Bankipore ...				
92	0.5	Nil	Nil	Nil	Nil	0.07	-0.07	42.43	43.04	-0.61	0.0	0.0	dnagulpore	South Bhagulpore				
84	0.9	Nil	Nil	Nil	Nil	0.10	-0.10	54.15	50.29	+3.86	0.0	0.0	oomka	Monkhyr	SOUTH BENGAL.			
74	3.3	Nil	Nil	0.01	Nil	0.27	-0.27	43.03	50.07	-7.04	0.0	0.1	Hasaribagh	Sonthal Pergunnahs...				
77	5.4	Nil	Nil	0.02	Nil	0.36	-0.36	44.34	48.58	-4.24	0.0	0.1	Ranchi	Hasaribagh ...				
		Nil	Nil	0.01	Nil	0.20	-0.20	38.33	46.42	-8.09	0.0	0.1		Lohardugga ...	CHUTTA NAGPUR.			
														Manthoom ...				
74	3.0	Nil	Nil	0.01	Nil	0.38	-0.38	48.76	50.78	-2.02	0.0	0.1	Chyebassa	Singbhoon ...				

ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means 17 years. The means of the district are the numerical average of the rainfall returns received in the district, i.e., from total rainfall at the subdivisional

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 27th of December 1889.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 21st December.	Sunday, 22nd December.	Monday, 23rd December.	Tuesday, 24th December.	Wednesday, 25th December.	Thursday, 26th December.	Friday, 27th December.	Number of rainy days.	Rainfall in week.				
ORISSA	Pooree	Pooree	0.08	0.04	0.09					3	0.21	0.21	0.74	80.63	81.08
		Khurda								Nil	Nil	Nil	0.22	78.57	80.23
		Banpur					0.14			1	0.14	0.14	1.26	65.80	68.89
		False Point					0.65	0.39		2	1.04	1.04	0.82	76.80	83.23
		Gop Pipli											?	?	?
	Cuttack	Jagatsingapore								Nil	Nil	Nil	0.38	73.97	46.70
		Banki								Nil	Nil	Nil	0.37	62.43	49.26
		Cuttack								Nil	Nil	Nil	0.36	75.18	56.01
		Kendrapara						0.26		1	0.26	0.26	0.21	72.03	52.78
		Jajpore								Nil	Nil	Nil	0.72	57.64	53.01
	Balasore	Dharmasala								Nil	Nil	Nil	?	?	?
		Salipore								Nil	Nil	Nil	?	72.47	?
		Chandali						0.12		1	0.12	0.12	0.60	54.64	51.90
		Rhuddruck								Nil	Nil	Nil	0.27	67.06	51.14
		Sorah								Nil	Nil	Nil	0.13	46.05	50.84
SOUTH-WEST BENGAL.	Midnapore	Balasore								Nil	Nil	Nil	0.40	46.01	57.44
		Jellapore								Nil	Nil	Nil	0.11	39.59	53.78
		Raripodah								Nil	Nil	Nil	0.16	54.79	53.45
		Contai						0.05		1	0.05	0.05	0.41	55.13	60.60
		Saugor Island						0.03		1	0.03	0.03	0.36	56.75	60.79
		Tumlook								Nil	Nil	Nil	0.28	49.40	50.81
		Midnapore								Nil	Nil	Nil	0.17	46.26	48.11
		Ghatat								Nil	Nil	Nil	0.28	43.10	54.04
		Kutrahaty								Nil	Nil	Nil	?	59.05	?
		Heria								Nil	Nil	Nil	?	65.06	?
	24-Pergunnahs	Bhagwanpore								Nil	Nil	Nil	?	61.72	?
		Gorbetta								Nil	Nil	Nil	?	46.29	?
		Diamond Harbour						0.04		1	0.04	0.04	0.26	63.41	57.56
		Canning Town						0.17		1	0.17	0.17	0.35	57.80	55.15
		Alipore Jail								Nil	Nil	Nil	0.30	51.99	49.39
		Barrackpore								Nil	Nil	Nil	0.36	64.28	51.10
		Dum-Dum								Nil	Nil	Nil	0.31	57.61	48.34
		Barasat								Nil	Nil	Nil	0.24	60.92	54.11
		Buseerhat								Nil	Nil	Nil	0.31	59.12	51.31
		Howrah								Nil	Nil	Nil	0.29	54.64	51.46
	Hooghly	Howrah								Nil	Nil	Nil	0.30	55.27	48.69
		Mohesreka (Ooiobertah)								Nil	Nil	Nil	0.29	54.02	47.79
	Hooghly	Serampore								Nil	Nil	Nil	0.20	41.16	54.05
		Hooghly								1	0.03	0.03	?	?	?
	Surdwan	Jehanabad								Nil	Nil	Nil	0.23	41.32	43.34
		Culina								Nil	Nil	Nil	0.31	47.07	47.51
		Surdwan								Nil	Nil	Nil	0.10	43.11	47.23
		Cutwa								Nil	Nil	Nil	0.12	55.83	48.89
	Bankura	Ranegunge								Nil	Nil	Nil	?	53.71	?
		Mankur								Nil	Nil	Nil	0.23	50.79	51.14
		Bankura								Nil	Nil	Nil	0.27	57.49	51.60
		Bishenpore								Nil	Nil	Nil	0.23	51.54	51.54
		Mahara								Nil	Nil	Nil	0.46	63.91	53.73
		Khatra								Nil	Nil	Nil	?	45.14	?
		Jadas								Nil	Nil	Nil	?	48.40	?
		Kotalpore								Nil	Nil	Nil	?	40.44	?
		Anda								Nil	Nil	Nil	?	59.17	?
		Gangajalghati								Nil	Nil	Nil	?	58.35	?
	Beerbhoom	Kaipore								Nil	Nil	Nil	?	54.33	?
		Nanakukhi								Nil	Nil	Nil	0.11	59.06	53.25
		Bh. Soory								Nil	Nil	Nil	0.11	47.07	53.77
		Hetampore								Nil	Nil	Nil	0.18	47.78	51.00
		Rampore Han								Nil	Nil	Nil	?	54.97	?
	Nadda	Boipore								Nil	Nil	Nil	?	53.19	?
		Mararai								Nil	Nil	Nil	0.21	55.80	46.57
		Ranaghat								Nil	Nil	Nil	0.08	42.95	45.71
		Kishnaghat								Nil	Nil	Nil	0.14	40.81	50.96
		Choudanga								Nil	Nil	Nil	0.13	55.05	47.11
	Khoolna	Meherpore								Nil	Nil	Nil	0.19	55.91	55.96
		Kooshtes								Nil	Nil	Nil	0.01	52.51	54.35
		Satkira						0.01		1	0.01	0.01	0.26	54.00	50.79
		Bagirhat						0.31		1	0.31	0.31	0.27	55.78	54.19
		Khoolna						0.18		1	0.18	0.18	0.32	?	?
	Jessore	Nalpur						0.30		1	0.30	0.30	?	?	?
		Narail								Nil	Nil	Nil	0.25	49.47	45.95
		Jessore								Nil	Nil	Nil	0.21	62.35	53.70
		Jhenidah								Nil	Nil	Nil	0.18	50.50	52.98
		Magorah								Nil	Nil	Nil	0.15	50.48	48.96
	Moorshedabad	Bongong								Nil	Nil	Nil	0.31	49.01	51.35
		Kandi								Nil	Nil	Nil	0.19	55.58	50.89
		Berhampore									Nil	Nil	Nil	0.17	46.16	50.73
		Lalbagh									Nil	Nil	Nil	0.15	47.13	50.62
		Azimungo									Nil	Nil	Nil	0.11	50.63	50.63
EAST BENGAL	Chittagong	Jungpore								Nil	Nil	Nil	0.12	55.01	48.66
		Lalgaon								Nil	Nil	Nil	0.11	59.02	50.56
		Jagunge								Nil	Nil	Nil	?	48.25	?
		Akraganj								Nil	Nil	Nil	?	42.81	?
		Pakabari								Nil	Nil	Nil	?	?	?
	Chittagong Hill Tracts.	Cor's Bazar						0.34	0.37	2	0.71	0.71	0.40	135.01	135.01
		Chittagong											0.09	76.42	63.76
		Katubdia											?	?	?
		Satkanya											?	?	?
		Rangmat											0.26	63.04	63.10
	Backergunge	Ruma						0.40		1	0.40	0.40	0.53	?	70.81
		Datonkhally											0.51	87.20	87.11
		Persepore						0.05		1	0.05	0.05	0.20	72.16	69.53
		Burnai						0.20		1	0.20	0.20	0.30	72.03	69.97
		Bhoia						0.44		1	0.44	0.44	0.54	70.36	81.45
	Backergunge	Bhoia						0.27		1	0.27	0.27	0.57	?	?

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 27th of December 1889—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 21st December.	Sunday, 22nd December.	Monday, 23rd December.	Tuesday, 24th December.	Wednesday, 25th December.	Thursday, 26th December.	Friday, 27th December.	Number of rainy days.	Rainfall week.				
EAST BENGAL—contd.	Noakholly	Gournaddi	0.00	0.00	0.00	0.00	0.00	0.35	0.00	1	0.35	0.35	?	92.89	?
		Naakholly	0.00	0.00	0.00	0.00	0.00	0.12	0.00	1	0.12	0.12	0.00	102.17	102.16
		Fenny	0.00	0.00	0.00	0.00	0.00	0.35	0.00	2	0.40	0.40	1.00	78.38	102.90
		Harishpore	0.00	0.00	0.00	0.00	0.00	0.39	0.00	1	0.39	0.39	?	82.96	?
	Farreedpore	Kampanj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	80.75	?
		Madaripore	0.00	0.00	0.00	0.00	0.00	0.06	0.00	1	0.06	Nil	0.16	60.83	54.29
		Furzedore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	63.80	55.14
	Dacca	Goswami	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	56.29	52.52
		Munakunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.34	76.33	69.55
		Dacca	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	74.09	58.04
		Narainkunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.35	80.25	39.45
	Hill Tipperah	Manickkunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	67.99	49.35
		Joydehpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	66.61	?
		Agartola	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.38	44.08	60.90
		Comilla	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.08	0.08	0.45	62.17	79.42
	Tipperah	Chandpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	64.82	75.24
		Brachmunberia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	50.68	69.88
		Ramchandrapore.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	60.14	?
		Nasirnagar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	30.59	?
	Mymensingh	Daudkandi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	52.29	?
		Kasba	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	32.44	?
		Laksham	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	69.09	?
		Kishoreganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	69.56	69.34
	Bogra	Atia (Tangail)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.02	0.02	0.00	61.00	54.97
		Mymensingh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	96.55	73.06
		Jamulpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	85.14	64.56
		Netrokona	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	125.92	72.61
	Rajshahye	Subornakhali	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	57.43	?
		Durgapore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	149.98	?
		Sherpore Town	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	87.09	?
		Dewanganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	56.31	?
	Pabna	Pubna	0.00	0.00	0.00	0.00	0.00	0.04	0.00	1	0.04	0.04	0.11	49.87	53.76
Serajkunge		0.00	0.00	0.00	0.00	0.00	0.13	0.00	1	0.13	0.13	0.10	60.26	62.33	
Sherpore		0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	62.06	57.03	
Nowkhilla		0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	60.96	53.81	
Rajshahye	Bogra	0.00	0.00	0.00	0.00	0.00	0.03	0.00	1	0.03	0.03	0.07	70.63	69.70	
	Panchbibi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.18	64.96	53.49	
	Beaulash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	46.29	52.51	
	Natore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	58.84	54.29	
Maldah	Naogaon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	57.87	50.64	
	Lalpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	56.72	?	
	Manda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	45.27	?	
	Maldah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	50.53	51.25	
Dinagore	Chanchal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.04	28.90	56.17	
	Gajol	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	59.79	?	
	Sibganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	51.77	?	
	Mohadehpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.17	53.63	53.82	
Rangpore	Churamon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	51.82	51.92	
	Rangpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.17	52.25	57.25	
	Dinagore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.08	67.84	62.99	
	Raipurhat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	61.28	50.90	
Jalpigoree	Thakurgaon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	87.47	?	
	Bhawanigunge (Gyabanda)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	57.53	61.24	
	Rangpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.08	74.41	73.94	
	Kurigram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.17	70.41	72.81	
Cooch Behar	Bagdola (Nilphamari)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	87.09	84.03	
	Ulipore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	79.00	?	
	Jalpigoree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	123.27	116.44	
	Alipore Door	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	119.58	?	
Darjeeling Hill	Pailacotta	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	127.43	?	
	Debiganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	80.92	?	
	Bhagatpore (Nagrakatta)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	138.51	?	
	Dinhatia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	98.00	95.72	
Darjeeling Hill	Cooch Behar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	125.34	117.81	
	Mickilgunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.20	121.37	105.21	
	Matabhanga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.14	117.63	111.15	
	Buxa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	191.08	191.06	
Purneah	Siliguri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.11	120.71	102.50	
	Darjeeling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	127.87	108.11	
	Kalimpang	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.43	91.36	82.76	
	Kursong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	168.25	?	
North Bhagulpore.	Kursong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	102.37	69.75	
	Kursong	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.08	79.61	63.74	
	Purneah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	63.45	61.13	
	Gondwara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	
Durbhunga	Matari	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	
	Kaliaganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.05	60.85	49.04	
	Maddapore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.09	67.26	47.08	
	Soopool	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	87.83	?	
Mozafferpore	Protaganj	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	
	Tajpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.07	42.44	42.55	
	Durbhunga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	59.61	45.28	
	Maddhaban	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.06	63.11	41.59	
Mozafferpore	Dahara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	69.96	?	
	Rokhera	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	55.84	?	
	Sitamardi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.08	55.00	45.00	
	Mozafferpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.08	48.41	44.71	
Mozafferpore	Itanipore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	42.32	41.39	
	Para	0.00	0.00	0.00	0.00	0.00									

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 27th of December 1889—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May.	Average rainfall from 15th May to date.
			Saturday, 21st December.	Sunday, 22nd December.	Monday, 23rd December.	Tuesday, 24th December.	Wednesday, 25th December.	Thursday, 26th December.	Friday, 27th December.	Number of rainy days.	Rainfall of week.				
NORTH BHAR.	Chumpan...	Motihari	...	...	...	...	...	...	...	NH	NH	NH	0'14	74'79	44'14
		Bettiah	...	...	...	...	...	...	...	NH	NH	NH	0'22	52'29	47'45
		Bogaha	...	...	...	...	...	...	...	NH	NH	NH	?	69'87	?
SOUTH BHAR.	Saran	Burkharwa	...	...	...	...	...	...	...	NH	NH	NH	?	51'70	?
		Gopalgunge	...	...	...	...	...	...	...	NH	NH	NH	0'17	35'48	42'72
		Chuprah	...	...	...	...	...	...	...	NH	NH	NH	0'15	44'29	44'23
	Shahabad	Buxar	...	...	...	...	...	...	...	NH	NH	NH	0'14	40'74	39'89
		Dehree	...	...	...	...	...	...	...	NH	NH	NH	0'19	47'44	37'70
		Bhabooh	...	...	...	...	...	...	...	NH	NH	NH	0'07	41'07	39'31
		Susseram	...	...	...	...	...	...	...	NH	NH	NH	0'27	38'13	40'16
		Arrah	...	...	...	...	...	...	...	NH	NH	NH	0'27	39'41	40'18
		Mohania	...	...	...	...	...	...	...	NH	NH	NH	0'29	42'09	39'69
	Gya	Aurungabad	...	...	...	...	...	...	...	NH	NH	NH	0'32	35'42	43'84
		Gya	...	...	...	...	...	...	...	NH	NH	NH	0'22	39'81	45'05
		Nowadah	...	...	...	...	...	...	...	NH	NH	NH	0'18	30'59	39'07
		Jehanabad	...	...	...	...	...	...	...	NH	NH	NH	0'16	35'40	39'38
		Arwal	...	...	...	...	...	...	...	NH	NH	NH	?	34'31	?
		Imdadnagar	...	...	...	...	...	...	...	NH	NH	NH	?	26'09	?
		Sherrghati	...	...	...	...	...	...	...	NH	NH	NH	?	29'29	?
	Patna	Rajauli	...	...	...	...	...	...	...	NH	NH	NH	?	17'92	?
		PakriBarawan	...	...	...	...	...	...	...	NH	NH	NH	?	31'90	?
		Patna	...	...	...	...	...	...	...	NH	NH	NH	0'13	51'49	41'38
		Barh	...	...	...	...	...	...	...	NH	NH	NH	0'14	45'33	40'94
CENTRAL NAGPUR.	Monghyr	Begoesar	...	...	...	...	...	...	...	NH	NH	NH	0'11	41'08	41'38
		Monchyr	...	...	...	...	...	...	...	NH	NH	NH	0'12	30'81	39'34
		Jamul	...	...	...	...	...	...	...	NH	NH	NH	?	43'28	?
		Gogri	...	...	...	...	...	...	...	NH	NH	NH	?	33'21	?
	South Bhagalpore.	Sheikpura	...	...	...	...	...	...	...	NH	NH	NH	0'07	47'62	39'81
		Bhagalpore	...	...	...	...	...	...	...	NH	NH	NH	0'07	41'07	45'07
		Banaka	...	...	...	...	...	...	...	NH	NH	NH	0'07	39'48	42'33
	Sonthal Per gunnals.	Kolgaup	...	...	...	...	...	...	...	NH	NH	NH	?	50'19	?
		Bangson	...	...	...	...	...	...	...	NH	NH	NH	?	43'32	?
		Rajmehal	...	...	...	...	...	...	...	NH	NH	NH	0'08	45'06	41'72
		Godda	...	...	...	...	...	...	...	NH	NH	NH	0'08	38'34	43'14
	Hazariabagh	Pakour	...	...	...	...	...	...	...	NH	NH	NH	?	4'07	?
		Nya Doomka	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Deokhur	...	...	...	...	...	...	...	NH	NH	NH	0'06	59'90	52'02
		Jamtara	...	...	...	...	...	...	...	NH	NH	NH	0'10	49'04	47'10
		Mohagama	...	...	...	...	...	...	...	NH	NH	NH	0'08	73'59	53'08
		Namkat	...	...	...	...	...	...	...	NH	NH	NH	0'13	50'75	51'01
	Lohardugga	Deokhur	...	...	...	...	...	...	...	NH	NH	NH	0'08	40'40	50'08
		Jamtara	...	...	...	...	...	...	...	NH	NH	NH	0'17	45'21	48'74
		Mohagama	...	...	...	...	...	...	...	NH	NH	NH	?	50'41	?
		Namkat	...	...	...	...	...	...	...	NH	NH	NH	?	55'87	?
		Pachamba	...	...	...	...	...	...	...	NH	NH	NH	0'13	38'90	47'03
		(Giridi)	...	...	...	...	...	...	...	NH	NH	NH	0'27	49'10	46'47
CENTRAL NAGPUR.	Hazariabagh	Hazariabagh	...	...	...	...	...	...	...	NH	NH	NH	0'31	30'24	46'30
		Sontakurrah	...	...	...	...	...	...	...	NH	NH	NH	0'30	47'31	47'31
		Mahudi Hills	...	...	...	...	...	...	...	NH	NH	NH	0'32	43'00	62'03
		Jhoomra Hills	...	...	...	...	...	...	...	NH	NH	NH	?	31'36	?
		Barhi	...	...	...	...	...	...	...	NH	NH	NH	?	44'04	?
		Chatra	...	...	...	...	...	...	...	NH	NH	NH	?	30'33	?
	Lohardugga	Karagdeha	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Ramghar	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Lohardugga	...	...	...	...	...	...	...	NH	NH	NH	0'63	45'24	50'46
		Ranchi	...	...	...	...	...	...	...	NH	NH	NH	0'26	53'61	51'48
	Kingbhoom	Salmonow	...	...	...	...	...	...	...	NH	NH	NH	0'18	34'16	43'40
		Silli	...	...	...	...	...	...	...	NH	NH	NH	?	33'80	?
		Balumat	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Hosseinabad	...	...	...	...	...	...	...	NH	NH	NH	?	44'40	?
CENTRAL NAGPUR.	Manbhoom	Gorwah	...	...	...	...	...	...	...	NH	NH	NH	?	28'77	?
		Chyebassa	...	...	...	...	...	...	...	NH	NH	NH	0'38	48'70	50'98
		Chakradhar-pore	...	...	...	...	...	...	...	NH	NH	NH	?	40'80	?
		Chatsilla	...	...	...	...	...	...	...	NH	NH	NH	?	58'70	?
	Manbhoom	Bharagura	...	...	...	...	...	...	...	NH	NH	NH	?	53'80	?
		Parulia	...	...	...	...	...	...	...	NH	NH	NH	0'23	45'46	48'25
		Gobindpore	...	...	...	...	...	...	...	NH	NH	NH	0'17	33'19	44'46
		Kashunath-pore	...	...	...	...	...	...	...	NH	NH	NH	?	43'91	?
CENTRAL NAGPUR.	Manbhoom	Burrahoom	...	...	...	...	...	...	...	NH	NH	NH	?	44'32	?
		Jhais	...	...	...	...	...	...	...	NH	NH	NH	?	51'42	?
		Chas	...	...	...	...	...	...	...	NH	NH	NH	?	58'26	?
		Chas	...	...	...	...	...	...	...	NH	NH	NH	?	58'26	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 31st December 1889.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 27TH
DECEMBER 1889.**

At the close of the previous week weather conditions in Bengal were quite normal for the season, and therefore of ordinary cold weather character. In the Bay also weather was fine except in the extreme south, where along the Madras coast from Cuddalore southwards rain was falling, the conditions being still disturbed as the result of the cyclonic storm which had passed across the extreme south of the peninsula on December 18th, moving in a westerly direction. On the 21st, or the first day of the present week, conditions in Bengal remained unaltered, but skies clouded up heavily over the south of Burma. Drizzling rain commenced over this area, and pressure fell slightly at Diamond Island, while elsewhere it was generally rising. Winds also at the South Burma stations commenced to show distinct indraught towards the south of the Bay, and at Diamond Island, instead of the light winds usual at this season, wind had increased to almost a gale. On this day, therefore, it is clear that weather had become very disturbed over the south of the Bay, and it is probable that a cyclonic storm had commenced to form. On the 22nd the area of stormy weather was still quite in the south of the Bay and probably about Longitude 88° E. The storm, therefore, appeared on this day to have drifted in a westerly direction, and probably the centre of the storm was not further north than Negapatam, or perhaps even than Trincomalee. At this time all the indications appeared to point to the probability that the storm would advance across the extreme south of the peninsula, or even across the north of Ceylon. On the morning of the 23rd, the storm was probably to the east-north-east of Negapatam and at some distance from land, and it was moving slowly in a north-westerly direction. On the 24th it had again advanced in a north-westerly direction, and its centre was probably to the east of Nellore or east-north-east of Madras; while on the morning of the 25th it had come much nearer the land, and its centre was to the south-east of Masulipatam. Even on the morning of the 25th it was apparent that the storm had ceased to intensify, but it was on this date a rather severe storm; but by the morning of the 26th, and particularly from midnight of the 25th, the storm had commenced to fill up rather rapidly. On this date it had become only a barometric depression, but it was accompanied by fairly strong winds, and the position of its centre was decidedly nearer the land than on the previous day, and it was perhaps even a little to the south-west of its previous position. On the morning of the 27th the depression had quite passed inland, the centre crossing the coast apparently between Masulipatam and Nellore during the afternoon or evening of the 26th. The storm in its progress was accompanied by only a moderate barometric depression as indicated by the readings at the coast stations, but it will be observed that the storm centre was at no time very near to any meteorological station while it existed as a severe storm. The strength of the winds in the northern half of the storm was decidedly great, and for two days a gale of wind was blowing at some of the ports on the west coast. No observations from ships which were involved in the storm have yet been received, but it is probable that very severe weather accompanied the northern half of the storm, but winds in the southern half appear to have been comparatively feeble. The rainfall in connection with the storm at the land stations has been also only moderate.

As is usually the case, directly a rather severe storm is formed in the Bay, weather conditions commenced to change in Bengal. Temperature at first began to rise slowly, but from about the 23rd or 24th, when the skies had clouded over quickly, the night temperatures rose very rapidly and became very high. The storm in its north-westerly advance apparently also caused a wave of moist winds from the sea to advance over Bengal, and on about the 24th at many stations the sky was almost overcast, while humidity as well as temperature was high. In Orissa and South-East Bengal, and in parts of South and even North Bengal, so much moisture was thus brought up that light showers commenced to fall at a few stations, and dull and rather gloomy weather obtained for some days,—in fact almost up till the close of the week. For a considerable part of the week under review, therefore, the weather conditions have been almost the reverse of the normal north-east monsoon weather, but with the gradual breaking up of the storm on the 26th, and with its disappearance inland on the 27th, conditions had begun slowly to improve again in Bengal even on the 26th and 27th of the month.

Pressure.—The storm which has been previously described was, even in its nearest advance, so far from Bengal that it had not much practical effect on the pressures recorded, except that at many stations, and particularly at those in the south-west of the province, pressure continued to fall very slowly up to about the 25th; but on the last two days of the week there was a rise, the increase on the 27th being rather rapid. The mean pressure for the week has been almost normal in Behar and North Bengal, but over the southern, and particularly over the south-western, districts there has been a distinct defect. In South Bengal generally the defect has varied from about two to four hundredths of an inch, but at such stations as Gopalpur and False Point, which were nearest to the storm, the defect has equalled about seven hundredths of an inch.

Temperature.—A very large increase in the night temperatures took place during the week, as before recorded, and generally temperature has been rather largely in excess of the normal throughout the week. The excess in the mean temperature has been largest in South-West and East Bengal and South Behar, where it has averaged from five to six degrees. In

Orissa, Chutia Nagpur, and North Bengal, the excess has been from four to five degrees, while the smallest excess of all is nearly four degrees in North Behar. The average mean temperature for the whole province has therefore been almost five degrees in excess of the normal for the week.

This excess has been most largely marked in the minimum or night temperatures. This will be seen clearly in the following table, where the average maximum, minimum and mean temperatures for the week for nine typical stations in different districts of the province are compared with their normal values for the same period. The usual range of temperature during the week in various districts can therefore also be here clearly seen. At such stations as Calcutta, Cuttack, and Burdwan, the average night or minimum temperatures for the week have been no less than about eight degrees in excess of the normal, while at the same stations the day or maximum temperatures have only been about three degrees in excess:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 27th December 1889.

	Normal mean maximum temperature for the week ending 27th December.	Actual mean maximum temperature for the week ending 27th December 1889.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 27th December.	Actual mean minimum temperature for the week ending 27th December 1889.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 27th December.	Actual mean daily temperature for the week ending 27th December 1889.	Variation of actual mean from the normal.
Cuttack	80.7	81.9	+1.2	56.6	64.4	+7.8	68.7	73.2	+4.5
Calcutta	74.4	77.4	+3.0	52.9	60.9	+8.0	63.7	69.2	+5.5
Dacca	76.7	80.6	+3.9	55.0	61.3	+6.3	65.9	71.0	+5.1
Burdwan	76.0	79.6	+3.6	52.4	60.7	+8.3	64.2	70.2	+6.0
Patna	72.1	76.1	+4.0	48.6	53.6	+5.0	60.4	64.8	+4.4
Gya	74.4	77.6	+3.2	49.5	53.4	+3.9	62.0	65.5	+3.5
Purneah	73.9	76.1	+2.2	47.3	52.3	+5.0	60.6	64.3	+3.7
Hazaribagh	70.7	73.9	+3.2	48.6	53.4	+4.8	59.7	63.6	+3.9
Darjeeling	46.3	54.2	+7.9	35.2	36.9	+1.7	40.8	43.6	+2.8

Rainfall.—Though a few showers have been received in Orissa and South-East Bengal, and at a few stations in South and North Bengal, the amounts received have not been important. The stations in Orissa and East Bengal show an average rainfall of a little more than a tenth of an inch, but the amounts in the other districts have been so small that they have only averaged a hundredth of an inch. False Point received the heaviest fall of about an inch, while the following stations received falls of a fifth of an inch and upwards:—Pooree, Kendrapara, Bagirhat, Nokipur, Chittagong, Rangamati, Perozepore, Burrisal, Bhola, Bauphal, and Fenny.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 27th of December 1889:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa*	81.8	50.5	79.2	63.2	71.2	+4.6	0.12	0.03	+0.09	0.6	0.1	+0.5	0.12	0.53	62.01	53.40
South-West Bengal	82.1	50.7	78.6	60.3	69.3	+5.4	0.01	0.01	0	0.2	0.1	+0.1	0.01	0.23	52.37	51.55
East Bengal	84.6	53.0	79.4	61.0	70.2	+5.7	0.12	0.02	+0.10	0.5	0.1	+0.4	0.12	0.35	75.50	73.08
North Bengal	81.5	50.5	78.5	56.4	67.4	+4.7	0.01	Nil	+0.01	0.1	0.0	+0.1	0.01	0.15	73.12	60.85
North Behar	78.4	47.9	70.1	52.1	64.1	+4.3	Nil	0.01	-0.01	0.0	0.1	-0.1	Nil	0.11	57.06	48.16
South Behar	80.3	47.4	70.9	52.8	64.9	+5.2	Nil	0.02	-0.02	0.0	0.1	-0.1	Nil	0.17	44.16	45.30
Chutia Nagpur	77.0*	47.9*	73.8*	53.2*	63.5*	+4.0*	Nil	0.01	-0.01	0.0	0.1	-0.1	Nil	0.28	43.08	48.84

* Pooree, Julpigoree and Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL;
The 31st December 1889.

A. PEDLER,
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 22nd to 28th December 1889.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
1889.		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
December ...	22nd ...	30·078	66·5	77·6	22·2	55·4	69·6	63·6	·509	59·5	70	.....
" ...	23rd ...	·063	69·0	77·9	17·8	60·1	72·4	65·1	·523	60·2	66	.....
" ...	24th ...	·027	70·8	81·4	21·3	60·1	73·6	66·1	·542	61·2	65	.....
" ...	25th ...	·035	72·9	77·9	10·0	67·9	73·6	68·6	·633	65·7	76	.....
" ...	26th ...	·079	73·9	81·4	15·0	66·4	72·8	69·6	·682	67·8	85	0·05
" ...	27th ...	·121	72·8	80·4	15·3	65·1	75·6	70·6	·683	67·8	77	.....
" ...	28th ...	·113	71·2	79·9	17·5	62·4	73·6	64·8	·497	58·8	66	.....

The mean 10 A.M. pressure of the seven days Inches.
30·074

The mean temperature of the seven days 71·0

The extreme variation of temperature 26·0

The maximum temperature 81·4

The mean 10 A.M. relative humidity of the seven days %
72

The total fall of rain from 22nd to 28th December 1889 Inches.
0·05

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA ;
The 30th December 1889.

MEMORANDUM.

DURING the week ending 14th December 1889, births and deaths were registered in the principal Municipalities in Bengal at the rates, respectively, of 26.9 and 31.6 per 1,000 of population, against 28.4 and 29.6 per 1,000, indicating a falling off in the registration of births against an improvement in that of deaths.

2. The highest proportions of births and deaths were returned from the following Municipalities :—

<i>Births.</i>				<i>Deaths.</i>			
			Ratio per mille.				Ratio per mille.
Bali	...	...	45.6	Narainganj	...	...	124.2
Serampore	...	...	45.1	Jessore	...	...	91.8
Rampore Beaulah	...	...	42.0	Utterpara	...	...	84.9
Arrah	...	...	40.7	Serampore	...	...	84.4
Durbhanga	...	...	39.3	Poori	...	...	83.9
Monghyr	...	...	38.9	Hughli and Chinsurah	...	...	59.1
Utterpara	...	...	37.7	Howrah	...	...	40.1
Bhagulpore	...	...	37.1	Dacca	...	...	38.3
Darjiling	...	...	37.0	Gya	...	...	35.5
Gya	...	...	35.6	Comillah	...	...	34.7
Hughli and Chinsurah	...	...	34.5	Durbhanga	...	...	34.6
Narainganj	...	...	33.1	Purneah	...	...	34.6
Chupra	...	...	31.2	Monghyr	...	...	34.4

3. The principal diseases specified in the table appended to this memorandum proved fatal at the rates exhibited below :—

		Ratio per mille during the weeks ending—	
		14th December 1889.	7th December 1889.
Cholera	...	4.7	4.9
Small-pox	...	2	3
Fever	...	13.4	10.8
Bowel-complaints	...	5.0	4.2
Injury	...	4	4
Other causes	...	7.9	8.9

indicating chiefly that, in comparison with the preceding week, the severity of fever has increased considerably, but that the mortality from the diseases classed under the head of "Other causes" has diminished to some extent.

4. While no Municipality suffered much from small-pox or presented a large number of casualties from injury, the following returned conspicuously high death-rates from the rest of the diseases specified in the above table :—

<i>Cholera.</i>		<i>Fever.</i>		<i>Bowel-complaints.</i>		<i>Other causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Narainganj	82.8	Jessore	73.5	Utterpara	37.7	Narainganj	29.0
Poori	27.2	Hughli and Chin-		Serampore	19.6	Serampore	23.6
Serampore	13.7	surah	37.7	Poori	14.7	Poori	18.9
Howrah	13.2	Purneah	31.2	Hughli and Chin-		Dacca	13.6
Dacca	6.5	Serampore	27.5	surah	13.1	Durbhanga	12.6
		Bali	21.1	Burdwan	12.2	Gya	11.6
		Gya	20.6	Howrah	10.9		
				Monghyr	9.9		

5. The death-rates under the heads of *Sex*, *Class* and *Age* stood as follows :—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	33.6	Christians	14.9	Under 1 year	178.2
Females	29.6	Hindus	32.8	1 and under 5 years	35.2
Ratio of male deaths to every 100 female deaths	122	Mahomedans	28.8	5 " 10 "	20.7
		Budhists	51.4	10 " 15 "	14.0
		Other classes	76.8	15 " 20 "	23.1
				20 " 30 "	20.9
				30 " 40 "	24.3
				40 " 50 "	27.0
				50 " 60 "	40.9
				60 years and upwards	76.7

The 30th December 1889.

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.

DISTRICTS.	NAMES OF MUNICIPALITIES.
Burdwan ..	Burdwan ..
Midnapore ..	Midnapore ..
Hughli ..	Hughli and Chitpur ..
Serampore ..	Serampore ..
Howrah ..	Howrah ..
Kolkata ..	Kolkata ..
Nadua ..	Nadua ..
Jessore ..	Jessore ..
Rajshahi ..	Rajshahi ..
Darjiling ..	Darjiling ..
Dacca ..	Dacca ..
Chittagong ..	Chittagong ..
Tripura ..	Tripura ..
Patna ..	Patna City ..
Gya ..	Gya ..
Shahabad ..	Shahabad ..
Muzaffarpore ..	Muzaffarpore ..
Durban ..	Durban ..
Saran ..	Saran ..
Bhagalpur ..	Bhagalpur ..
Monohr ..	Monohr ..
Farrukhabad ..	Farrukhabad ..
Poor ..	Poor ..
TOTAL	TOTAL

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.

CIRCULAR AND EASTERN CANALS.

Approximate Return of Traffic for the week ending Saturday, the 21st December 1889, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 21ST DECEMBER 1889.			WEEK ENDING SATURDAY, THE 22ND DECEMBER 1888.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	1,615	1,23,283	1,681	1,228	1,62,775	2,168
Jute	343	2,02,650	3,687	274	1,33,875	2,472
Firewood	128	86,850	1,269	179	82,335	1,266
Other articles	996	2,17,070	3,554	1,321	3,23,015	5,345
Total	3,082	6,29,853	10,191	3,002	7,02,000	11,251

CIRCULAR AND EASTERN CANALS.

Approximate return of traffic for the week ending Saturday, the 28th December 1889, as compared with the corresponding week of the previous year.

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 28TH DECEMBER 1889.			WEEK ENDING SATURDAY, THE 29TH DECEMBER 1888.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	1,744	1,59,595	2,298	1,297	3,07,325	2,776
Jute	379	4,00,650	4,166	242	1,36,850	2,458
Firewood	80	46,650	693	156	84,300	1,289
Other articles	1,025	2,56,170	4,042	1,042	1,90,665	2,932
Total	3,228	8,63,065	11,199	2,737	7,19,140	9,455

Nalhati State Railway.

Statement showing increases and Decreases in tonnage of Staples carried over the Nalhati State Railway during the month of October 1889, as compared with the same month of the previous year.

STAPLES.	1888.		1889.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1888.	1889.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal	693	.....	589	.....	693	589	.....	104
Cotton piece-goods—	49	2	6	.....	51	6	.....	45
1.—European	.....	.....	.....	.....	.....	.....	.....	.....
Grains—	158	739	59	7	867	69	.....	801
2.—Rice	8	.....	45	4	8	49	41	.....
4.—Others	.....	.....	.....	.....	.....	.....	.....	.....
Hides and skins—	.....	.....	5	.....	.....	5	5	.....
1.—Hides of cattle—	.....	.....	.....	.....	.....	.....	.....	.....
a.—Dressed	1	.....	.....	.....	1	.....	.....	.....
b.—Undressed	.....	.....	.....	.....	.....	.....	.....	.....
Jute—	.....	6	.....	5	6	5	.....	1
1.—Raw	19	2	3	.....	21	3	.....	18
2.—Gunny bags and cloths	.....	.....	.....	.....	.....	.....	.....	.....
Lao—	1	.....	.....	1	1	1	.....	.....
1.—Stick	8	.....	3	.....	8	3	.....	5
Leather, manufactured	.....	.....	.....	.....	.....	.....	.....	.....
Liquors—	1	.....	.....	.....	1	.....	.....	1
1.—Beer	.....	7	.....	2	8	2	.....	6
Metals—	.....	.....	.....	.....	.....	.....	.....	.....
4.—Others	.....	.....	.....	.....	.....	.....	.....	.....
Oils—	.....	.....	1	.....	.....	1	1	.....
1.—Castor	.....	2	1	.....	3	1	.....	2
2.—Kerosine	1	.....	1	.....	1	1	.....	.....
3.—Others	.....	.....	.....	.....	.....	.....	.....	.....
Oilseeds—	20	.....	24	.....	20	24	4	.....
2.—Mustard and rape	39	6	.....	.....	45	.....	.....	45
6.—Others	.....	.....	.....	.....	.....	.....	.....	.....
Provisions—	1	.....	3	.....	15	3	2	.....
1.—Ghee	2	13	.....	.....	.....	.....	.....	15
2.—Dried fruits and nuts	1	3	.....	.....	4	.....	.....	4
3.—Others	89	21	59	20	110	79	.....	31
Railway plant and rolling-stock	42	1	16	.....	43	16	.....	27
Salt	.....	.....	.....	.....	.....	.....	.....	.....
Silk, raw—	2	18	.....	15	20	15	.....	5
2.—Indian	.....	.....	.....	2	4	2	.....	2
Silk piece-goods—	.....	4	.....	.....	.....	.....	.....	.....
2.—Indian	.....	.....	.....	.....	1	.....	.....	1
Spices—	1	.....	.....	1	4	1	.....	3
2.—Others	4	.....	.....	.....	.....	.....	.....	.....
Stone and lime	14	.....	3	.....	14	3	.....	11
Sugar—	.....	.....	.....	.....	.....	.....	.....	.....
1.—Drained	2	.....	1	.....	5	2	.....	3
2.—Undrained	5	.....	.....	.....	.....	.....	.....	.....
Tobacco	.....	.....	.....	.....	.....	.....	.....	.....
Timber	47	14	93	25	61	121	60	.....
All other articles of merchandise	.....	.....	.....	.....	.....	.....	.....	.....
Total	1,210	808	919	86	2,018	1,095	118	1,131

INCREASE.							Tons.
Grains—							
(4) Others	...	...	...	...	...	...	41
This increase is owing to greater import of paddy for high price at Azimganj.							
DECREASE.							
Coal	...	...	...	...	...	...	104
This decrease is due to previous stock not being exhausted.							
Cotton piece-goods—							
(1) European	...	...	...	...	...	...	45
This is due to this traffic being carried by steamers plying between Jeaganj and Calcutta.							
Grains—							
(2) Rice	...	...	...	...	...	...	801
This is due to less export from intermediate stations.							
Jute—							
(2) Gummy-bags and cloths	...	...	...	...	...	...	18
This is due to less export of grains.							
Oilseeds—							
(6) Others	...	...	...	...	...	...	45
This is due to less import for dull market.							
Provisions—							
(2) Dried fruits and nuts	...	...	...	...	...	...	15
Owing to less import of cocoanuts.							
Railway plant and rolling-stock	...	...	...	...	...	...	31
This is due to less materials carried during the month.							
Salt	...	...	...	...	...	...	27
This is due to this traffic being carried by boat.							
Sugar—							
(1) Drained	...	...	...	...	...	...	11
Less imported on account of less demand.							

The 27th December 1889.

R. G. MOOKERJEE,
Manager, Nalhati State Railway.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 21st December 1889, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Totalearnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	216,540	2,72,920 6 0	25,51,653 10	6,23,094 3 6	20,511 14 0	9,16,406 7 6	66,276	91,006½	157,282½
Or per mile of railway	...	178 14 6	...	408 6 11	13 7 1	600 12 6	...	...	...
For previous 24 weeks of half-year	5,743,047	62,98,121 11 0	5,15,95,130 20	1,16,74,536 6 6	3,88,169 9 5	1,84,20,847 10 11	1,582,388½	1,932,830½	3,521,223½
Total or 24 weeks	5,959,587	66,31,042 1 0	5,41,44,783 3 0	1,22,97,620 10 0	4,08,681 7 5	1,93,37,344 2 5	1,648,664½	2,029,840½	3,678,511
COMPARISON.									
Total for corresponding week of previous year	218,724½	2,96,392 3 5	24,51,943 0	6,92,373 3 9	17,552 14 10	10,05,228 5 10	66,256	166,745	173,001
Per mile of railway corresponding week of previous year	...	195 9 3	...	453 13 10	11 5 1	658 15 2	...	...	...
Total to corresponding date of previous year	5,861,276½	65,27,214 14 5	5,89,21,397 0	1,25,19,219 12 10	4,32,701 4 2	1,94,79,155 15 5	1,630,498	2,057,901	3,688,399

* The decrease in coaching traffic is due to figures for the corresponding period of 1888 having included earnings on account of troop extra trains.

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI. Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1889.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
1,525½	Rs. 19,55,328	659	1,525½	Rs. 9,16,406	601	1,525½	Rs. 3,14,03,841	542	1,525½	Rs. 3,15,64,099*	541	...	50,748

PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 21st December 1889, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,743	8,553 14 0	42,701 30	2,762 4 0	52 13 0	11,318 15 0	1,967	528	2,565
Or per mile of railway ...	258	149 11 0	746 30	47 3 10	0 14 9	197 14 1	.....	.....	.....
For previous 24 weeks of half-year ...	324,347	1,80,322 8 0	*10,16,544 30	*51,263 9 0	†1,537 12 3	2,36,143 13 3	37,936½	17,553	55,224½
Total for 24 weeks ...	339,090	1,88,886 6 0	10,59,248 20	56,965 13 0	1,610 9 3	2,47,402 12 3	39,931½	18,186	58,080½
COMPARISON.									
Total for corresponding week of previous year ...	13,490	7,319 1 1	25,675 10	1,744 4 0	47 4 3	9,110 9 4	1,751	643	2,394
Per mile of railway corresponding week of previous year ...	236	127 15 3	449 0	30 7 11	0 13 3	159 4 5	.....	.....	.....
Total to corresponding date of previous year ...	330,887½	1,81,824 4 2	10,50,731 0	56,301 11 0	1,414 4 0	2,42,540 3 11	45,637	17,146	62,513

* Added Mds. 3,310 and Rs. 74 5 0 } on account of supplemental goods and miscellaneous receipts for the last two days of September 1889.

† Ditto

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
57½	Rs. 9,111	Rs. 159	57½	Rs. 11,319	Rs. 198	57½	Rs. 3,66,405	Rs. 164	57½	Rs. *3,61,403	Rs. 166	Rs. 4,998	Rs.

* Added Rs. 654 on account of supplemental goods and miscellaneous receipts for the last two days of September 1889.

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 21st December 1889, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	15,583	3,894 12 0	7,514 30	324 1 0	6 8 0	4,133 5 0	900	150	1,080
Or per mile of railway ...	.....	171 0 0	.....	14 9 0	0 4 8	183 13 8	.....	.....	.....
For previous 24 weeks of half-year ...	423,915	1,04,797 6 0	*2,15,847 20	*6,468 0 0	†142 11 6	1,11,408 1 6	22,958	1,032	23,990
Total for 24 weeks ...	439,498	1,08,602 2 0	2,23,662 10	6,792 1 0	140 3 6	1,12,548 6 6	22,958	2,112	25,070
COMPARISON.									
Total for corresponding week of previous year ...	15,054½	3,632 4 3	7,785 20	283 9 0	6 13 3	3,942 10 6	906	62	968
Per mile of railway corresponding week of previous year ...	.....	164 2 4	.....	12 11 11	0 4 11	177 3 2	.....	.....	.....
Total to corresponding date of previous year ...	442,917	1,09,461 15 5	1,27,060 10	5,091 6 0	168 11 6	1,14,632 0 11	23,078	1,210	24,388

* Added maunds 5,714-30 and Rs. 52-8-0 } on account of supplemental goods and miscellaneous receipts for the last two days of September 1889.

† Ditto

Approximate Statement of gross receipts of the Tarkessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
22½	Rs. 3,943	Rs. 177	22½	Rs. 4,133	Rs. 186	22½	Rs. 2,00,079	Rs. 238	22½	Rs. *1,98,176	Rs. 234	Rs.	Rs. 2,203

* Added Rs. 53 on account of supplemental goods and miscellaneous receipts for the last two days of September 1889.

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTIONS.)

Approximate Return of Traffic for week ended 14th December 1889, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILE RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	141,110	73,800 0 0	7,37,140 0	1,90,640 0 0	18,170 0 0	2,91,670 0 0	21,680	38,818	60,498
Or per mile of railway ...	189	99 0 0	973 0	267 0 0	74 0 0	370 0 0	.....	.....	.....
For previous 23 weeks of half-year ...	3,216,534	15,04,720 0 0	1,46,13,400 0	37,09,682 0 0	3,78,545 0 0	*55,09,947 0 0	509,406	671,973	1,181,379
Total for 24 weeks ...	3,357,644	15,78,580 0 0	1,53,40,540 0	39,00,322 0 0	3,96,715 0 0	58,84,617 0 0	531,086	710,791	1,241,877
COMPARISON.									
Total for corresponding week of previous year ...	124,542	63,290 0 0	6,07,282 0	1,00,305 0 0	17,625 0 0	2,41,280 0 0	21,266	32,097	53,363
Per mile of railway corresponding period of previous year ...	185	94 0 0	902 0	238 0 0	74 0 0	336 0 0	.....	.....	.....
Total to corresponding date of previous year ...	3,283,447	14,78,486 0 0	1,47,63,313 0	37,80,219 0 0	4,03,729 0 0	56,71,434 0 0	496,918	733,869	1,230,787

* Audited up to week ending 26th October 1889.

† Excluding steamer earnings.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 14TH DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 15TH DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 14TH DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
672	2,41,280	358	747	2,91,670	390	673	76,36,906	306	721	*80,20,058	301	3,93,132	.....

* Audited up to week ending 26th October 1889.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 14th December 1889, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	25,376	10,830 0 0	59,470 0	2,369 0 0	290 0 0	13,470 0 0	3,606	2,006	5,672
Or per mile of railway ...	203	87 0 0	244 0	19 0 0	2 0 0	105 0 0	.....	.....	.....
For previous 23 weeks of half-year ...	*634,271	2,31,167 0 0	*13,21,440 0	1,19,767 0 0	5,673 0 0	*3,46,067 0 0	82,481	52,506	134,787
Total for 24 weeks ...	659,647	2,31,987 0 0	13,51,910 0	1,22,127 0 0	5,363 0 0	3,59,477 0 0	86,087	54,372	140,459
COMPARISON.									
Total for corresponding week of previous year ...	24,406	10,928 0 0	47,923 0	2,835 0 0	45 0 0	12,958 0 0	3,606	2,006	5,672
Per mile of railway corresponding period of previous year ...	196	89 0 0	383 0	23 0 0	1 0 0	104 0 0	.....	.....	.....
Total to corresponding date of previous year ...	642,229	2,12,884 0 0	14,01,905 0	1,38,125 0 0	1,846 0 0	3,52,855 0 0	86,715	50,715	140,427

* Audited up to week ending 26th October 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 14TH DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 15TH DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 14TH DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	11,058	164	125	13,470	108	125	5,14,657	112	125	*5,30,325	117	24,668	.....

* Audited up to week ending 26th October 1889.

DACCA STATE RAILWAY.

Approximate Return of Traffic for week ended 14th December 1889, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	18,390	Rs. A. P. 5,900 0 0	Mds. S. 54,580 0	Rs. A. P. 4,500 0 0	Rs. A. P. 120 0 0	Rs. A. P. 10,520 0 0	2,547	2,281	4,828
Or per mile of railway ...	214	69 0 0	635 0	52 0 0	1 0 0	122 0 0	.....	.....	.....
For previous 23 weeks of half-year ...	348,940	1,14,570 0 0	6,64,115 0	56,668 0 0	5,864 0 0	*1,77,402 0 0	57,576	17,856	75,432
Total for 24 weeks ...	367,330	1,20,770 0 0	7,18,695	61,168 0 0	5,984 0 0	1,87,922 0 0	60,123	20,157	80,280
COMPARISON.									
Total for corresponding week of previous year ...	14,500	5,178 0 0	18,695 0	1,905 0 0	170 0 0	7,253 0 0	2,510	594	3,104
Per mile of railway corresponding period of previous year ...	169	60 0 0	216 0	22 0 0	2 0 0	84 0 0	.....	.....	.....
Total to corresponding date of previous year ...	540,265	1,67,796 0 0	3,61,752 0	28,947 0 0	4,553 0 0	1,41,296 0 0	60,254	15,744	75,998

* Audited up to week ending 26th October 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 15TH DECEMBER 1889.			RECEIPTS FOR WEEK ENDING 14TH DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 15TH DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 14TH DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	7,253	84	86	10,520	122	86	2,06,387	65	86	*2,03,089	83	56,802	.....

* Audited up to week ending 26th October 1889.

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Approximate earnings for week ending 30th November 1889 ...	Rs. 8,477
Corresponding week last year ...	10,829
Decrease ...	2,352
Receipts from 1st July to 30th November 1889 ...	2,42,105
From 1st July to 1st December 1888 ...	2,64,200
Decrease ...	22,095
Compared with 1887, there is an increase of Rs. 21,163 for the corresponding period.	
Miles open week ending 30th November 1889 ...	Miles. 51
Corresponding week last year ...	51
Receipts per mile open week ending 30th November 1889 ...	Rs. A. P. 166 8 5
Corresponding week last year ...	212 5 6
Decrease ...	46 2 1

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Approximate earnings for week ending 7th December 1889 ...	Rs. 11,451
Corresponding week last year ...	9,441
Increase ...	2,010
Receipts from 1st July to 7th December 1889 ...	2,53,856
From 1st July to 8th December 1888 ...	2,73,641
Decrease ...	19,785
Compared with 1887, there is an increase of Rs. 23,735 for the corresponding period.	
Miles open week ending 7th December 1889 ...	Miles. 51
Corresponding week last year ...	51
Receipts per mile open week ending 7th December 1889 ...	Rs. A. P. 224 8 6
Corresponding week last year ...	185 2 0
Increase ...	39 6 6



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JANUARY 8, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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Abstract of the Proceedings of the Council of the Lieutenant-Governor of Bengal, assembled for the purpose of making Laws and Regulations under the provisions of the Act of Parliament 24 and 25 Vic., Cap. 67.

THE Council met at the Council Chamber on Saturday, the 4th January, 1890.

Present:

The HON'BLE SIR STEUART COLVIN BAYLEY, K.C.S.I., C.I.E., Lieutenant-Governor of Bengal, *presiding*.

The HON'BLE SIR CHARLES PAUL, K.C.I.E., *Advocate-General*.

The HON'BLE F. B. PEACOCK.

The HON'BLE P. NOLAN.

The HON'BLE T. T. ALLEN.

The HON'BLE SIR HENRY HARRISON, K.T.

The HON'BLE SIR ALFRED CROFT, K.C.I.E.

The HON'BLE DR. MAHENDRA LAL SIRCAR, C.I.E.

The HON'BLE C. H. MOORE.

The HON'BLE H. PRATT.

The HON'BLE SHAHZADA MAHOMMED FURROKH SHAH.

The HON'BLE DR. RASH BEHARY GHOSE.

The HON'BLE RAJA RAMESHWAR SING BAHADUR.

RULES FOR THE CONDUCT OF BUSINESS.

THE Hon'ble Sir Charles Paul presented the Report of the Select Committee appointed to consider and amend the Rules for the Conduct of Business at Meetings of the Council.

He said:—"The Council will see from the report the amendments which have been made. The rules have been redrafted in what we considered a more convenient form. The only material alterations are those mentioned in the report, to two of which I shall refer. One of these is Rule 31, where it is provided that when a Bill is introduced, it shall, together with the Statement of Objects and Reasons, be published in the English and Vernacular languages in the official gazettes of such parts of Bengal as are affected by the Bill. And on some subsequent occasion the member in charge of it shall make one or more of the following motions:—(a) that it be referred to a Select Committee, or (b) that it be taken into consideration by the Council at some future day, or (c) that it be circulated for the purpose of eliciting opinions thereon.

"The amendment which we have made is this. We have provided in certain cases, whenever it may be unnecessary to refer a Bill to a Select Committee, that it may be taken into consideration by the Council. Occasions have arisen where a reference to a Select Committee was useless to provide for such cases. We have put in clause (b) of Rule 31.

"But inasmuch as it may be said that such a Bill should not be passed too summarily, we have provided that it shall be published with the Statement of Objects and Reasons, and as a rider upon that we have, as mentioned in the fifth paragraph of our report, provided, as a matter of further precaution, that the President shall have authority, upon a motion to consider a Bill being carried, to submit the Bill itself, or any part of it, section by section, to the Council; thus making the Council act the part of a Select Committee.

"Then another rule to which I wish to call attention is Rule 44. This is intended to meet the case which has occurred more than once of the passing of a Bill being postponed on account of some formal or trifling amendment having been made.

"I wish to point out another matter which came before the Select Committee. Under the Indian Council's Act the President has a casting vote. That provision was made a rule under our existing rules. The Members of the Select Committee thought that it did not come within the scope of a rule, and therefore what we propose to do (but which has been left out by mistake) is to add a foot-note indicating that the President has a casting vote under a particular section of the Indian Council's Act. This has only been done for the purpose of making the subject complete and calling attention to it.

"We have also provided that the right of the President to address the Council before putting the question should be indicated in specific terms, and have introduced a rule giving effect to that object. These are the principal amendments we have made."

HIS HONOUR the President said:—"This Report will be in the hands of Members to-day, and the Rules will be brought forward for passing at the next meeting of the Council. Under the rules we have yet to get the consent of the Government of India before they can come into force."

BENGAL VACCINATION BILL.

The Hon'ble SIR HENRY HARRISON introduced the Bill to amend the Bengal Vaccination Act, 1880, and Act II, 1887, and moved that it be read in Council.

He said:—"I explained at the last meeting the objects and measures of this Bill which are very much of a formal character."

The Motion was put and agreed to.

The Bill was read accordingly.

The Hon'ble SIR HENRY HARRISON also moved that the Bill be referred to a Select Committee, consisting of the Hon'ble Messrs. Nolan and Allen, and the Mover, with instructions to report thereon within one fortnight.

The Motion was put and agreed to.

CALCUTTA AND THE SUBURBAN POLICE SUPERANNUATION FUNDS BILL.

The Hon'ble SIR HENRY HARRISON moved that the Report of the Select Committee on the Bill to consolidate the Calcutta and the Suburban Police

Superannuation Funds be taken into consideration in order to the settlement of the clauses of the Bill.

The Motion was put and agreed to.

The Hon'ble SIR HENRY HARRISON also moved that the clauses of the Bill be considered for settlement in the form recommended by the Select Committee.

He said :—"I wish to make one remark on the present occasion. The Select Committee in their report said, that they struck out so much of section 2 as made the provisions of that section applicable to the Clerk appointed to manage the Superannuation Fund.

"Since then I have received a memorial from the Clerk drawing attention to the hardship to him of losing his pension, but so long a time has elapsed since the report of the Select Committee was prepared that I have not been able to remember why we left it out. I do not think we had the intention of depriving the Clerk of his salary or pension.

"My recollection is, that we considered the wording of section 2 sufficient without making any particular reference to the Clerk. The words of the section are:—'The Police Superannuation Funds * * * shall be consolidated, and shall form one Police Superannuation Fund and, shall be applied from time to time to the payment of the charges incurred in the control and management of the said Fund.' That is the first purpose to which the revenues of the Fund are to be applied. The section goes on to say—'and of such sperannuation or retiring allowances or gratuities as may be ordered by the Local Government at any time to any Police Officer of the Calcutta or Suburban Police Force,' and the words followed—'or to any person employed as a Clerk to manage the said Fund.' That seemed to the Select Committee rather confused, because the first purpose to which the revenues are to be applied, viz., the management of the Fund, is quite different from the second purpose, which is the payment of pensions and gratuities to members of Police Force for which the Fund primarily exist. Therefore to put the Clerk in the same category as the Police Force seemed rather out of place. The Clerk rather came under that portion of the section which made the revenues applicable to the payment of the charges incurred in the control and management of the Fund.

"But as there may be some doubt, I will ask the Council to insert such words as will remove all difficulty, and therefore I move that the words 'including salaries, pensions or gratuities' be inserted after 'charges' in line 7 of section 2, making the wording run thus: 'and shall be applied from time to time to the payment of the charges, including salaries, pensions or gratuities, incurred in the control and management of the said Fund.' That, I believe, will make the intention quite clear."

The Motion was put and agreed to.

The Hon'ble Sir Henry Harrison's motion that in line 7 of section 2, after the word "charges" the words "including salaries, pensions or gratuities" be inserted, was also put and agreed to.

CALCUTTA PORT BILL.

HIS HONOUR the President said:—"The next item of business on the list is to consider the Report of the Select Committee on the Bill to consolidate and amend the law relating to the Port of Calcutta and to the appointment of Commissioners for the said Port. On that subject the Hon'ble Mr. Moore has rather an important amendment to propose; and as the matter is still under the consideration of the Chamber of Commerce, he asks that the consideration of this Bill be postponed. I am sure the Council will readily accede to the Hon'ble Member's request, and I hope we shall be able to discuss the Bill at our next meeting."

The consideration of the Report was postponed.

The Council adjourned to Saturday, the 11th January, 1890.

CALCUTTA;
The 7th January, 1890.

C. H. REILY,
Assistant Secretary to the Govt. of Bengal,
Legislative Department.

PROPOSED EXHIBITION IN VIENNA.

The 31st December, 1889.—The following correspondence is published for general information.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,
Secretary to the Govt. of Bengal.

Circular No. 49C.—M. & Ex., dated Calcutta, the 19th December 1889.

From—J. W. P. MUIR-MACKENZIE, Esq., c.s., Under-Secretary to the Government of India, Revenue and Agricultural Department,

To—The Secretary to the Government of Bengal.

I AM directed to forward a copy of a letter No. 990, dated the 31st August last, from the Imperial and Royal Austro-Hungarian Consul-General, Bombay, regarding an exhibition to be held in Vienna between the 15th May and 31st October, 1890, of articles connected with agriculture and the management of forests, and to request that you will be good enough, with the permission of His Honour the Lieutenant-Governor, to give due publicity to the announcement.

No. 990, dated Bombay, the 31st August 1889.

From—F. STOCKINGER, Esq., Imperial and Royal Austro-Hungarian Consul-General, Bombay,

To—The Secretary to the Government of India, Foreign Department.

By order of my Government I have the honour to inform you that, under the auspices of the Imperial and Royal Agricultural Society in Vienna, an exhibition of articles connected with agriculture and the management of forests will be held in Vienna between the 15th May and the 31st October 1890.

According to the official prospectus the following foreign articles will be admitted to this exhibition :—

- (1) Machines and appliances for agriculture and sylviculture and for the industries connected therewith; also for the production of fruit, wine and hops; for the breeding of domestic fowls, of bees, silk-worms and dogs; for hunting, shooting, and fishing.
- (2) Various appliances for agriculture, such as artificial manure, artificial fodder, veterinary appliances and medicines, &c.
- (3) Models, plans and drawings; also statistical information referring to agricultural and sylvicultural improvements, architecture and engineering.
- (4) Models, plans, drawings and statistical information referring to agricultural and sylvicultural instruction and experiments; also the literature bearing on these subjects.
- (5) Models, plans, drawings and statistical information referring to the utilisation of droppings and waste stuff.
- (6) Models, plans, drawings and statistical information referring to the food-supply of large cities.
- (7) Domestic fowls and dogs.

I have the honour to request you, therefore, to bring the foregoing information to the notice of the respective official authorities as soon as possible.

Should any further information be required by intending exhibitors, I shall be happy to give it as far as I am able to do so, and also to forward any notice or application for admission to the said exhibition to the proper quarter.

Such notice should be given or application made as soon as possible.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 4th January 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
Western Districts.			
BURDWAN DIV.	1 Burdwan Jan. 4, '90	Nil	Weather—seasonable. Harvesting of winter rice going on. Prospects of <i>rubbi</i> fair, and those of sugarcane good. Prices of common rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Burdwan 15 Raneegunge 15½ Culina 16 Cutwa 15½</div> <div style="font-size: 2em; margin-left: 5px;">}</div> <div style="margin-left: 5px;">per rupee.</div> </div>
	2 Bankoora „ 4, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> over. Prospects of <i>rubbi</i> not good. Sugarcane doing well. Common rice selling at 20 seers per rupee at Sudder and 18½ seers at Bishenpore.
	3 Birbhum „ 4, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> crop nearly finished. Sugarcane is in fine order, but not yet ripe for crushing. Rice selling at Soory 16½ seers per rupee, and at Rampore Hât 18 seers.
	4 Midnapur „ 4, '90	Nil	Weather—cold and bright. Harvesting of rice continues. Outturn in Contai about 14 annas, and in rest of the district about 12 annas. Prices continue to fall in most thanas. Prices of rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Sudder 16 Contai 24 (new rice) Tumluk 18 Ghatal 18</div> <div style="font-size: 2em; margin-left: 5px;">}</div> <div style="margin-left: 5px;">per rupee.</div> </div>
	5 Hooghly „ 4, '90	Nil	Weather—seasonable. Reaping of winter paddy almost over. Prospects of <i>rubbi</i> crops good. Prices of common rice :— <div style="text-align: right;">Srs. Ch.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Sudder 12 0 Serampore 11 8 Jehannabad 18 7</div> <div style="font-size: 2em; margin-left: 5px;">}</div> <div style="margin-left: 5px;">per rupee.</div> </div>
PRESIDENCY DIV.	Howrah „ 4, '90	Nil	Weather—a little cloudy. <i>Amun</i> crop is still being reaped. Prospects good. Price of common rice at Sudder 12½ seers per rupee.
	Central Districts.		
	6 24-Pergas. Jan. 4, '90	Nil	Weather—Seasonable. Harvesting of <i>amun</i> going on, and the yield is estimated at 16 annas. Winter crops doing well. Common rice sells at from 15 to 17 seers per rupee; at Barrackpore only the price is quoted at 13½ seers.
	7 Nuddea „ 4, '90	Nil	Weather—seasonable. Harvesting of late rice is completed. Winter crops are doing well. <i>Kalai</i> and <i>mung</i> are being harvested.
	8 Khoolna „ 4, '90	Nil	Weather—seasonable. <i>Amun</i> harvest still progressing; outturn good. Prospects of winter crops good.
RAJSHAHY DIV.	9 Jessore „ 4, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> rice still going on. Outturn of <i>kalai</i> , mustard, tobacco, and linseed expected to be 10 annas. These crops were partly damaged by the unseasonable rain in November. Price of rice stationary.
	10 Moorshedabad „ 4, '90	Nil	Weather—bright and cold. <i>Amun</i> and <i>kalai</i> are still being harvested. Prospects of <i>rubbi</i> crops good.
	11 Dinagepur „ 4, '90	Nil	Weather—cloudy with east wind; very foggy. Harvesting of winter rice going on. Coarse rice selling at 17 seers per rupee.
	12 Rajshahye „ 4, '90	Nil	Weather—seasonable, a little cloudy. Paddy and <i>kalai</i> are still being harvested with fair outturn. Spring sowings are going on satisfactorily. Prospects on the whole good.
	13 Rungpur „ 4, '90	Nil	Weather—seasonable. The <i>amun</i> harvest is nearly over. Tobacco transplantation continues. Wheat, mustard, and sugarcane promise well. Land is being prepared for early rice.
RAJSHAHY DIV.	14 Bogra „ 4, '90	Nil	Weather—days warm, nights somewhat chilly. About two-thirds of <i>amun</i> crop reaped. Other crops doing well. Price of common rice at head-quarters 20 seers per rupee.
	15 Pubna „ 4, '90	Nil	Weather—seasonable. <i>Amun</i> crop is being reaped; outturn expected to be about 13 annas. Sugarcane is a deficient crop; the yield is not expected to be above 8 annas. Winter crops are fair. Prices still high.
	16 Darjeeling „ 4, '90	Nil	Weather—very cold and bright. The crops both in hills and Terai are doing well. Prospects generally good.
	17 Julpigoree „ 4, '90	Nil	Weather—cold and fair. Cutting of <i>haimanti</i> paddy nearly finished. Prospects good. Prices of ordinary rice :— <div style="text-align: right;">Srs.</div> <div style="display: flex; justify-content: flex-end;"> <div style="text-align: left;">Julpigoree (Sudder) 15 to 16 Boda 20 Rajgunge 20 Patgram 15 Damdim 16 Tatalya 13 Alipore Duars 15 to 16</div> <div style="font-size: 2em; margin-left: 5px;">}</div> <div style="margin-left: 5px;">per rupee.</div> </div>

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca Jan. 4, '90	Nil	Weather—bright and cold. Harvesting of <i>amun</i> finished; outturn on the whole good. Winter crops doing well. Sowing of <i>boro</i> paddy going on. Fodder is available. No special change in the prices of food-grains.
	19 Furreedpur „ 4, '90	Nil	Weather—seasonable. <i>Amun</i> harvest completed. <i>Kalai</i> is being cut. Cold-weather crops doing well. Flow of date juice fair. <i>Jali</i> rice is being sown on churs.
	20 Backergunge „ 4, '90	Nil	Weather—seasonable. Prospects of crops good. Harvesting of <i>amun</i> still continues.
	21 Mymensingh „ 4, '90	Nil	Weather—cool and bright. Harvesting of <i>amun</i> paddy still going on. <i>Rubbi</i> crops are in a flourishing condition. Price of common rice almost steady.
Chittagong Divn.	22 Chittagong „ 4, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> not yet finished. Prospects of winter crops fair.
	23 Noakholly „ 4, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> nearly finished. <i>Rubbi</i> crops doing well. Price of rice stationary.
	24 Tipperah „ 4, '90	Nil	Weather—seasonable. Cutting of <i>amun</i> paddy completed. Winter crops doing well.
	25 Chittagong Hill Tracts. „ 3, '90	Nil	Weather—very cold with dense fogs in the morning throughout the week; cloudy during the last two days. Harvesting of late plough-paddy still continues. Mustard, tobacco, and chillies progressing.
	Hill Tipperah „ 4, '90	Nil	Weather—cold. <i>Amun</i> paddy and cotton are still being gathered; fair outturn expected. Prospects of tobacco and chillies fair.
BEHAR.			
Patna Divn.	26 Patna „ 4, '90	Nil	Weather—cold. Paddy is still being reaped in some places. <i>Rubbi</i> crops are progressing well. Rain would do good to the standing crops. Gram, peas, and mustard are flowering. Prospects of poppy favourable. There has been a slight rise in prices of some of the food-grains.
	27 Gya „ 4, '90	Nil	Weather—cold. Prospects of <i>rubbi</i> and poppy favourable. Paddy is being harvested. Food-stocks sufficient.
	28 Shahabad „ 4, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> crops continue good. Sugarcane is being pressed. Prices of rice falling and of other food-grains stationary.
	29 Durbhunga „ 4, '90	Nil	Weather—clear and cold. Harvesting of rice almost completed. Prospects of <i>rubbi</i> continue favourable, but a shower of rain would be greatly beneficial to the crop. Poppy reported to be very favourable. Tobacco crop is fair. Prices stationary.
	30 Mozufferpur „ 4, '90	Nil	Weather—cold and clear. Prospects of poppy and <i>rubbi</i> crops continue good. Tobacco crop very promising.
	31 Sarun „ 4, '90	Nil	Weather—seasonable. <i>Rubbi</i> crops look well. Prospects satisfactory. Poppy looks healthy and is promising.
Bhagulpore Divn.	32 Champaran „ 4, '90	Nil	Weather—cold and bright. <i>Rubbi</i> crops doing well, but a good shower of rain would be beneficial. Poppy thriving; prospects excellent. Pressing of sugarcane progressing. Prices of food-grains easy.
	33 Monghyr „ 4, '90	Nil	Weather—cool and fine. Harvesting of winter rice almost finished. <i>Rubbi</i> crops and poppy doing well.
	34 Bhagulpur „ 4, '90	Nil	Weather—seasonable. Rice harvest closing. <i>Rubbi</i> crops now want rain. Mustard outturn likely to be rather below the average.
	35 Purneah „ 4, '90	Nil	Weather—days rather warm for the season. Clouds gathered, but have dispersed. <i>Aghani</i> rice harvested, except on the very low lands; outturn for the whole district averages 16 annas. Mustard and <i>kurthi</i> are being gathered. Tobacco promises well. Showers are wanted for <i>rubbi</i> crops generally.
	36 Maldah „ 4, '90	Nil	Weather—rather hot for the time of the year. Harvesting of winter rice still continues. <i>Rubbi</i> crops are doing well, but some rain would do good to them. Price of common rice stationary.
	37 Southal Pergha. „ 4, '90	Nil	Weather—generally bright and clear. Cloudy for the past two days. Rice harvest still going on; an average outturn expected. <i>Rubbi</i> crops satisfactory.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack Jan. 4, '90	Nil	Weather—seasonable. Reaping of <i>laghu sarad</i> over; estimated outturn about 14 annas. <i>Rubbi</i> doing well.
	39 Pooree „ 3, '90	Nil	Weather—seasonable. Harvesting of winter rice (late <i>sarad</i>) still continues. <i>Dalua</i> and <i>mung</i> crops doing well. Prices of food-grains steady.
	40 Balasore „ 4, '90	Nil	Weather—seasonable. Rice harvest not yet completed. Prospects of <i>rubbi</i> fair.
CHOTA NAGPORE.			
South-West Frontier Agency.			
CHOTA NAGPORE DIVN.	41 Hazaribagh Jan. 4, '90	Nil	Weather—seasonable and cold. Crops generally good.
	42 Lohardugga „ 4, '90	Nil	Weather—seasonable: very cold. Prospects of <i>rubbi</i> good, but it wants rain soon. Harvesting of paddy is nearly finished in Palamow. Sugarcane not yet gathered.
	43 Singbhoom „ 4, '90	Nil	Weather—cloudy. <i>Surguja</i> and <i>sarao</i> (mustard) crops are being reaped. <i>Rubbi</i> prospects good. Prices stationary.
	44 Manbhoom „ 4, '90	Nil	Weather—seasonable throughout the week excepting to-day (4th), which is rather cloudy. Winter paddy is being threshed; probable outturn 14 annas. Other crops doing well.

Published for general information.

CALCUTTA ; REVENUE DEPT.,
The 7th January, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.			
BENGAL.																			
Western Districts.																			
1	Bardwan	14 8	13 4	12 4	No sale.			12 0	10 0	13 8	15 12	12 5	18 12	...	...	...
2	Bankoora	14 8	13 12	12 4	14 0	14 0	14 8	15 0	15 0	16 4	19 0	18 0	21 0	...	...	...
3	Boerbhoom	15 8	15 0	11 4	...	...	...	12 0	13 0	12 0	15 0	15 0	16 8	...	...	...
4	Midnapore	13 0	12 8	13 5	...	...	...	12 8	11 0	13 0	17 0	16 0	17	...	...	...
5	Hooghly*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Howrah	...	...	...	...	...	...	9 8	9 8	12 8	14 0	12 8	17 12	...	...	...
Central Districts.																			
	Calcutta	13 4	13 3	12 9	16 10	16 11	16 13	8 10	8 3	10 3	13 8	13 5	15 3	17 3	14 12	17			
6	24-Pergunnabs	13 0	13 5	12 8	16 0	16 0	16 0	7 8	7 8	8 0	16 0	15 0	16 0	...	...	...
7	Nuddea	15 0	15 0	14 0	17 12	17 12	22 14	10 10	10 10	12 5	12 7	12 6	17 10	...	...	...
8	Khoolna	...	...	...	...	...	...	11 8	11 8	14 0	16 0	14 0	18 0	...	...	...
9	Jessore	13 5	13 5	11 0	...	...	...	9 0	9 0	11 0	16 0	16 0	17 0	...	...	...
10	Moorshedabad*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	Dinapore	17 8	17 8	12 0	14 8	14 8	12 0	15 8	15 8	15 8	19 0	19 0	19 9	...	...	...
12	Rajshahye	15 12	15 0	15 12	19 8	19 8	24 0	13 8	10 8	12 0	15 12	13 8	16 8	...	...	...
13	Rungpore	13 5	13 5	14 3	...	...	...	10 0	8 8	12 4	13 5	12 12	16 0	...	...	...
14	Bogra	{ Best. 12 0 Com. 15 12 }		15 0	9 12	...	...	12 0	12 0	12 0	18 12	18 0	18 12	...	...	...
15	Pubna	12 0	15 8	17 0	...	...	...	7 8	7 6	8 0	16 8	14 4	17 4	...	...	...
16	Darjeeling	11 0	11 0	10 0	10 0	10 0	10 0	5 0	5 0	5 0	12 0	12 0	12 0	...	...	...
17	Julpigoree	13 0	12 0	11 0	16 0	16 0	16 0	8 0	8 0	9 8	16 0	17 0	16 0	...	...	...
Eastern Districts.																			
18	Dacca	13 0	13 0	15 0	16 0	16 0	20 0	13 0	12 0	14 0	16 0	14 0	16 0	...	...	...
19	Furreedpore	12 0	13 0	11 0	12 0	12 0	...	11 0	10 0	8 0	15 0	15 0	16 0	...	...	...
20	Backergunge	...	...	...	...	...	...	14 4	15 4	13 5	16 0	16 2	16 13	...	...	...
21	Mymensingh	10 0	10 0	9 0	...	...	...	9 0	8 0	12 0	14 0	13 14	20 0	...	...	...

* Return not received.

- A. In subdivisions retail prices of salt per rupee are:—Quinn 10 seers, Cutwa 10 seers 6 chittacks, and Kaneesgunge 10 seers 10 chittacks.
 B. At Rampore Hat retail price of salt 9½ seers per rupee.
 C. In Tumuck and Contal subdivisions retail price of salt 8 seers per rupee.
 D. In subdivisions retail prices of salt per rupee are:—Barnaset 9 seers, Basirhat 9 seers, Diamond Harbour (at Magrahat) 10 seers, Barrackpore 9 seers 2 chittacks, and Dum-Dum 10 seers.
 E. In subdivisions retail prices of salt per rupee are:—Ranaghat 9 seers 2 chittacks, Chooadanga 9 seers, Koooshta 10 seers, and Moharapore 10½ seers.
 F. In subdivisions retail prices of salt per rupee are:—Batachira 9 seers 2 chittacks and Bagirhat 8 seers.
 G. In subdivisions retail prices of salt per rupee are:—Jhenida 9 seers, Magura 9½ seers, Narail 9½ seers, and Bongong 10 seers.

SEERS OF 80 TOLAHS.

BAJRA OR CUMBU. (<i>Pennisetum typho-</i> <i>ideum</i> .)			MARUA OR RAOL (<i>Eragrostis Corocana</i> .)			KANONT OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	18 0	17 0	16 8	
...	15 8	15 0	14 8	
...	16 0	16 0	14 4	
...	15 0	15 0	14 0	
...	17 0	16 4		
...	
...	16 12	16 8	15 0	

13 0	13 2	11 14	...	...	...	15 11	15 3	17 12	16 2	15 15	15 3						
...	...	...	...	...	...	4 0	5 4	12 8	16 0	16 0	16 0						
...	...	...	...	...	...	...	...	...	18 14	18 14	16 0						
...	...	...	...	...	...	...	...	...	12 0	12 0	16 0						
...	...	...	...	...	...	...	...	...	16 0	16 0	16 0						
...						
...	...	...	...	...	...	...	...	...	14 8	14 8	12 0						
...	...	...	...	...	...	...	...	...	18 0	18 0	13 8						
...	...	...	...	...	...	...	...	...	13 5	13 5	10 5						
...	...	...	...	...	...	...	...	...	13 8	15 0	9 12						
...	...	...	...	...	...	...	...	...	15 0	15 4	18 0						
...	...	...	13 0	13 0	14 0	...	...	...	10 0	10 0	10 0						
...	...	...	...	...	...	...	...	...	13 0	13 0	11 0						

...	...	...	...	...	...	...	...	...	13 0	13 0	13 0						
...	...	...	...	...	...	...	...	...	11 0	12 0	11 0						
...	...	...	...	...	...	...	...	...	15 8	15 0	13 5						
...	...	...	...	...	...	...	...	...	13 0	13 0	12 0						

INDIAN-CORN OR MAIZE. (Zea Mays.)			ABRAR OR THUR. CADJAN PEA. (Cajanus indicus.)			FIREWOOD.		
Present return.	Next return. preceding	Corresponding return of last year.	Present return.	Next return. preceding	Corresponding return of last year.	Present return.	Next return. preceding	Corresponding return of last year.

S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
No sale.			20 0	18 0	16 0	100 0	100 0	107 0
26 0	26 0	19 0	16 8	15 8	18 12	280 0	280 0	320 0
...	12 0	10 8	16 12	160 0	160 0	160 0
...	13 8	13 0	20 0	160 0	160 0	120 0
...
...	13 4	13 0	13 8	100 0	100 0	100 0

18 5	18 5	16 13	16 7	16 10	16 10	100 0	100 0	95 0
...	...	...	18 0	17 0	17 0	100 0	100 0	100 0
...	...	...	16 0	16 0	17 12	...	...	...
...	...	...	...	...	...	160 0	160 0	160 0
...	...	...	16 0	16 0	16 0	160 0	160 0	100 0
...
...	...	...	...	...	...	160 0	160 0	160 0
...	...	...	17 0	17 0	18 3	240 0	240 0	240 0
...	...	...	10 5	10 5	10 0	100 0	100 0	120 0
...	...	...	...	...	...	90 0	90 0	90 0
...	...	...	16 8	17 4	18 12	200 0	200 0	200 0
21 0	20 0	20 0	8 0	8 0	8 0	120 0	120 0	120 0
...	...	...	13 0	12 0	9 8	128 0	128 0	128 0

...	...	...	14 0	14 0	16 0	160 0	160 0	120 0
15 0	15 0	...	11 0	10 0	10 0	120 0	120 0	120 0
...	...	...	...	...	...	120 0	120 0	120 0
...	...	...	14 0	14 0	13 0	...	...	...

Head-quarter Station Bazars of the Districts of Bengal on the 31st December 1889.

			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.												DISTRICTS.
SALT.			SALT.			ABLE-BODIED AGRICULTURAL LABOURER.			STEEL OR HORSE- KEEPER.			COMMON MASON, CARPENTER, OR BLACKSMITH.						
Present return.	Next return	Corresponding return of last year.	Present return.	Next return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.				
BENGAL.																		
Western Districts.																		
S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.				
10 2	10 5	10 7	3 12 0	3 12 0	3 11 0	8 0	8 0	8 0	6 0	6 0	6 8	10 0	10 0	10 0	Burdwan.			
10 0	10 0	10 0	3 15 0	3 15 0	3 14 0	7 0	7 0	6 0	5 0	6 0	5 0	15 0	15 0	15 0	Bankoora.			
10 8	10 8	10 0	3 10 0	3 10 0	3 13 0	6 0	5 0	5 0	6 0	6 0	6 0	10 0	10 0	10 0	Beerbhoom.			
10 3	10 3	10 4	3 15 0	3 15 0	3 14 0	6 1	7 8	6 0	6 0	6 0	5 0	7 8	7 8	7 8	Midnapore.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Hooghly.
9 2	9 2	10 8	3 14 0	3 14 0	3 10 0	...	...	...	...	...	...	...	...	...	Howrah.
Central Districts.																		
10 0	10 1	10 5	3 11 11	3 11 11	3 9 6	5 0	5 0	5 0	6 0	6 0	6 0	15 0	15 0	15 0	Calcutta.			
10 0	10 0	10 4	3 9 6	3 10 0	3 10 0	8 0	8 0	8 0	6 0	6 0	6 0	15 0	15 0	15 0	24-Pergunnahs.			
9 2	9 2	9 2	3 14 0	3 14 0	3 14 0	...	...	...	...	...	...	...	...	...	Nuddea.
8 0	8 0	10 0	4 4 0	4 4 0	4 0 0	...	...	...	...	...	...	...	...	...	Khoolna.
9 2	9 2	9 0	4 0 0	4 0 0	4 0 0	5 0	5 0	5 0	4 0	4 0	4 0	10 0	10 0	10 0	Jessore.			
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Moorsheadabad.
6 8	9 8	10 0	4 0 0	4 0 0	3 14 0	7 8	7 8	7 8	6 0	6 0	6 0	10 0	10 0	10 0	Dinapore.			
9 0	9 0	9 9	4 4 0	4 5 4	4 0 0	4 0	4 0	5 0	4 0	4 0	4 0	8 0	8 0	8 0	Rajshahye.			
8 8	8 8	9 6	4 8 0	4 8 0	4 4 0	7 8	5 0	7 8	6 0	6 0	6 0	10 0	10 0	10 0	Rungpore.			
8 13	8 13	8 4	4 2 8	4 2 8	4 5 4	6 0	6 0	6 0	5 0	5 0	5 0	10 0	10 0	10 0	Bogra.			
8 11	8 11	9 10	4 0 0	4 1 6	3 15 0	5 0	5 0	5 0	6 0	6 0	6 0	7 0	7 0	7 0	Pubna.			
0 8 0	7 0	5 0	5 0	5 0	5 0	6 0	6 0	6 0	8 0	8 0	8 0	12 0	12 0	12 0	Darjeeling.			
9 0	9 0	9 0	4 2 0	4 2 0	4 4 0	7 8	7 8	7 8	9 0	9 0	9 0	15 0	15 0	15 0	Julpigoree.			
Eastern Districts.																		
9 4	9 4	9 2	4 4 0	4 4 0	4 4 0	6 0	6 0	6 0	7 0	7 0	7 0	8 0	8 0	8 0	Dacca.			
9 0	9 0	9 0	4 4 0	4 4 0	4 2 0	10 0	7 8	7 8	10 0	7 0	8 0	15 0	15 0	15 0	Furzedpore.			
10 0	10 0	10 10	4 0 0	4 0 0	3 12 0	7 8	9 8	7 8	6 0	6 0	6 0	10 0	10 0	10 0	Backergunge.			
9 0	8 8	9 10	4 6 0	4 10 0	4 2 0	7 8	7 8	7 0	6 0	6 0	6 0	12 0	12 0	12 0	Mymensingh.			

G In Thakurgaon subdivision retail price of salt 8 seers per rupee.

H In subdivisions retail prices of salt per rupee are:—Natore 9 seers and Nowgong 8 seers 11 chittacks.

I In subdivisions retail prices of salt per rupee are:—Gaibanda 8 seers and Nilphamari 9 seers.

J At Seragunge retail price of salt 9½ seers per rupee.

K At Siliguri wholesale price of salt Rs. 4-4 per maund.

L At Falaoutta in Alipore subdivision retail price of salt 8 seers per rupee.

M In subdivisions retail prices of salt per rupee are:—Manickgunge 8 seers, Moonshigunge 8 seers 14 chittacks, and Naraingunge 9 seers 12 chittacks.

N In subdivisions retail prices of salt per rupee are:—Patuakhali 9 seers, Persepore 9 seers, and Bhola 8 seers.

O In subdivisions retail prices of salt per rupee are:—Kishoregunge 8 seers, Jamalpore 10 seers, Sherepore 8 seers, and Netrokona 8 seers.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the Head-quarter

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLEM. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
Eastern Districts—concluded.																			
22	Chittagong	11 0	11 0	11 0	...	...	...	8 0	8 0	14 0	16 0	16 5	17 5	...	...	...
23	Noakholly*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Tipperah	10 7	12 5	12 8	...	...	...	10 0	10 0	16 0	16	17 12½	20 0	...	...	...
25	Chittagong Hill Tracts.	...	...	...	...	...	...	10 0	10 0	11 6½	11 6	13 5	13 5½	...	...	...
	Hill Tipperah	6 0	6 0	6 0	...	...	...	8 0	8 0	9 0	16 0	16 0	20 0	...	...	...
BEHAR.																			
26	Patna	17 4	17 8	17 8	24 0	24 0	20 0	10 8	10 8	11 0	18 0	18 6	16 0	22 0	24 0	...			
		15 8	15 4	16 4	...	...	...	...	...	...	...	...	...	...	...	...
27	Gya	16 8	17 0	13 8	20 0	20 0	16 0	10 0	10 0	9 8	17 0	18 0	15 8	...	...	...
28	Shahabad	16 0	16 0	15 8	22 0	21 0	18 4	9 0	9 0	10 0	17 0	16 8	15 8	21 0	22 8	18 4			
29	Durbhunga	17 0	16 0	12 9½	19 0	20 8	20 15½	14 8	12 8	19 2	19 8	20 0	14 5	...	...	...
30	Mozufferpore	14 0	13 0	12 0	20 0	18 0	...	10 0	10 8	9 0	18 0	19 0	12 0	...	...	...
31	Sarun	16 4	15 12	15 0	22 0	21 0	21 8	8 8	8 8	8 8	15 10	14 14	13 8	...	...	...
32	Chumparun	13 0	12 0	13 0	20 0	20 0	21 0	9 0	9 0	9 0	18 0	19 0	13 8	...	...	...
33	Monghyr	17 5	17 13	15 12	21 0	15 12	21 0	12 1	12 1	14 11	16 4	18 14	17 13	...	...	21 0	
34	Bhagnipore	16 6	16 6	15 2	20 3	20 3	12 10	12 0	12 1½	11 0	17 11	16 6	15 2	...	...	...
		15 2	15 2	15 2	...	...	...	...	...	...	...	...	...	...	...	...
35	Purneah	20 0	20 0	14 0	...	...	...	17 0	20 0	14 0	19 0	22 0	16 0	...	...	...
36	Maldah	18 0	18 0	14 0	...	...	...	9 0	11 0	12 0	16 0	14 8	17 0	...	...	...
37	Sonthal Pergas.	14 0	15 0	13 0	...	...	...	12 0	12 0	12 8	18 0	17 0	19 0	...	...	...
ORISSA.																			
38	Cuttack	13 2	13 2	13 2	...	...	...	10 8	10 8	11 13	19 11	18 6	19 11	...	...	...
39	Pooree	13 2	13 2	11 13	...	...	...	14 7	14 7	11 13	22 10	22 10	17 1	...	...	...
40	Balasore	15 0	15 0	12 0	13 0	13 0	13 0	12 0	12 0	12 0	18 0	17 0	22 0	...	...	...
CHOTA NAGPORE.																			
South-West Frontier Agency.																			
41	Hazaribagh	14 0	13 0	12 0	12 0	11 0	11 0	10 0	10 0	8 0	20 0	20 0	17 0	...	...	...
42	Lohardugga	11 12	12 0	11 0	12 0	13 0	...	18 0	2 0	14 8	20 0	22 0	19 0	...	...	...
43	Siaghthoom	10 0	10 0	10 0	20 0	20 0	20 0	16 0	16 0	16 0	20 0	20 0	20 0	...	...	...
44	Manbhoom	13 5	13 5	11 8	...	...	...	13 0	12 8	13 0	22 0	21 0	22 0	...	...	...

* Return not received.

P. At Cox's Bazar, retail price of salt 8 seers per rupee.

F1. In subdivisions retail prices of salt per rupee are:—Buxar 10 seers, Basseram 10½ seers, and Bhahua 9½ seers.

Q. In subdivisions retail prices of salt per rupee are:—Tajpore 11 seers and Madhubani 10 seers.

R. In subdivisions retail prices of salt per rupee are:—Hajpore 9½ seers and Sitamarhi 10 seers.

S. At Bettiah retail price of salt 9½ seers per rupee.

BEERS OF 80 TOLAHS.

BAJRA OR CUMBU. (<i>Pennisetum typho-</i> <i>ideum</i> .)			MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN. ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	12 0	12 0	11 8
...
...	13 14	13 14	16 0
...
...	12 0	12 0	10 0
...
...	24 0	26 0	...	19 8	19 8	15 8	22 8	23 0	19 0
...	15 0	15 0	14 4	19 0	20 0	17 0
...	22 0	22 0	18 0
...	29 8	28 4	19 12	18 4	...	...	26 0	27 0	17 0
...	19 0	20 0	16 0
...	23 8	22 0	20 0	14 8	14 0	15 0	21 3	21 0	17 8
...	28 8	28 0	23 0	...	...	...	22 0	18 0	15 0
...	16 13	15 3	...	10 8	22 5	22 1	19 2
...	23 3	20 3	16 11
...	16 0	16 0	13 0
...	16 0	17 0	12 0
...	16 0	16 0	14 0
...	15 2	15 2	18 6
...	17 1	15 12	13 2
...	14 0	14 0	13 0
...	30 0	33 0	20 0	...	...	...	16 0	16 0	14 0
...	40 0	40 0	29 0	...	...	...	13 8	13 14	15 8
...	10 0	10 0	12 0
...	15 8	15 12	13 5

INDIAN-CORN OR MAIZE (<i>Zea Mays.</i>)			ARHAR OR THUR. CAJAN PEA. (<i>Cajanus indicus.</i>)			FIREWOOD.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	100 0	100 0	110
...
...	8 6 $\frac{3}{4}$	8 6 $\frac{3}{4}$	8 0	...	...	...
...	320 0	320 0	320
...	8 0	8 0	8 0	...	...	...

22 8	24 0	20 0	20 0	22 8	22 0	130 0	130 0	130
...	...	...	18 0	18 0	18 0	200 0	200 0	200
...	...	...	19 0	20 0	14 0	140 0	140 0	160
24 0	25 0	18 11	18 0	22 0	20 15 $\frac{1}{2}$	180 0	160 0	157
24 0	22 0	17 0	18 0	22 0	20 0	160 0	160 0	160
21 14	22 0	20 0	19 8	20 8	20 8	160 0	160 0	160
24 8	25 0	19 0	17 8	17 0	21 0	160 0	160 0	160
24 2	25 4	18 10	17 13	18 14	18 14	147 0	147 0	168
22 11	24 0	18 4	17 11	17 10	17 10	176 12	151 8	189
...	...	...	16 0	15 0	16 0	130 0	130 0	200
...	...	...	...	...	...	160 0	160 0	120
27 0	27 0	19 8	20 0	19 0	22 0	200 0	200 0	200

...	...	...	14 7	17 1	17 1	80 0	80 0	80
...	...	...	15 12	15 12	13 2	80 0	80 0	80
...	...	...	...	...	...	140 0	140 0	160

24 0	28 0	20 0	17 0	...	16 0	320 0	320 0	320
32 0	35 0	18 0	15 8	14 12	16 8	180 0	140 0	140
32 0	32 0	...	12 0	12 0	15 0	200 0	200 0	200
32 0	32 0	26 0	18 0	16 0	16 0	200 0	200 0	250

Station Bazars of the Districts of Bengal on the 31st December 1889—(concluded).

SALT.			WHOLESALE PRICES PER MAUND OF 40 SEERS.			AVERAGE WAGES PER MONTH.												DISTRICTS.
			SALT.			ABLE-BODIED AGRICULTURAL LABOURER.			STEEL OR HORSE- KEEPER.			COMMON MASON, CARPENTER, OR BLACKSMITH.						
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.				
S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.				
Eastern Districts—concluded.																		
P 9 0	9 0	9 0	4 0 0	4 0 0	3 14 0	10 8	8 0	8 0	8 0	8 0	8 0	9 8 to 12 0	9 4 to 12 0	9 0 to 11 0	Chittagong.			
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Noakholly.
8 14	8 14	8 0	4 8 0	4 8 0	4 6 0	..	..	..	..	..	..	..	..	..	Tipperah.
8 0	8 0	8 0	4 8 0	4 8 0	4 8 0	..	..	..	..	..	..	..	..	..	Chittagong Hill Tracts.
8 0	8 0	8 0	4 6 0	4 6 0	4 5 0	8 0	8 0	8 0	6 0	6 0	6 0	15 0	15 0	15 0	Hill Tipperah.			
BEHAR.																		
9 8	9 8	10 0	3 14 0	3 14 0	3 13 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 8 to 5 0	4 8 to 5 0	4 8 to 5 0	7 0 to 8 0	7 0 to 8 0	6 0 to 8 0	Patna.			
9 2	9 2	9 0	4 2 0	4 2 0	.....	3 0 to 3 0	3 0 to 3 0	3 0 to 3 0	5 0 to 5 0	5 0 to 5 0	5 0 to 5 0	8 0 to 8 0	8 0 to 8 0	8 0 to 8 0	Gya.		
P 10 0	10 0	10 0	3 15 0	3 15 0	4 0 0	5 0	5 0	5 0	4 0 to 6 0	4 0 to 6 0	4 0 to 6 0	6 0 to 7 8	6 0 to 7 8	6 0 to 7 8	Shahabad.			
Q 10 0	10 0	11 8	3 12 0	4 0 0	3 4 0	..	..	..	..	..	..	..	..	..	Durbhunga.
R 10 0	10 0	10 0	4 0 0	4 0 0	3 12 0	3 12 to 3 12	3 0 to 3 12	3 0 to 3 12	4 0 to 4 0	4 0 to 4 0	4 0 to 4 0	7 8 to 9 6	5 0 to 8 0	5 0 to 8 0	Mozufferpore.			
9 8	9 8	10 0	4 2 0	4 2 0	3 14 6	3 12 to 2 13	3 12 to 2 13	3 12 to 2 13	4 0 to 4 0	4 0 to 4 0	4 0 to 4 0	10 0 to 5 10	10 0 to 5 10	10 0 to 5 10	Sarun.			
S 9 8	9 8	8 0	4 2 0	3 15 0	4 0 0	3 12 to 4 0	3 12 to 4 0	3 12 to 4 0	6 0 to 3 0	6 0 to 3 0	6 0 to 3 0	9 6 to 6 0	9 6 to 5 0	9 6 to 6 0	Chumparun.			
T 9 11	10 0	9 8	3 14 6	3 14 6	4 0 0	5 10 to 5 0	5 10 to 5 0	5 10 to 5 0	4 0 to 4 0	4 0 to 4 0	4 0 to 4 0	8 0 to 12 0	12 0 to 8 0	8 0 to 8 0	Monghyr.			
10 1	10 1	10 1	3 15 6	3 15 6	4 0 0	3 12 to 4 11	3 12 to 4 11	3 12 to 4 11	4 0 to 4 0	4 0 to 4 0	4 0 to 4 0	11 4 to 7 0	11 4 to 7 0	11 4 to 7 0	Bhagulpore.			
U 10 0	9 0	9 0	4 0 0	4 7 0	4 5 4	5 10 to 6 9	5 10 to 5 10	5 10 to 5 10	5 0 to 5 0	5 0 to 5 0	5 0 to 5 0	16 0 to 16 0	16 0 to 16 0	16 0 to 16 0	Purneah.			
9 0	8 8	9 0	4 4 0	4 6 0	4 1 6	7 8 to 6 0	7 8 to 6 0	7 8 to 6 0	5 0 to 5 0	5 0 to 5 0	5 0 to 5 0	5 0 to 12 0	5 0 to 15 0	5 0 to 10 0	Maldah.			
9 4	9 4	9 0	4 0 0	4 0 0	4 5 0	8 12	8 12	3 12	5 0	5 0	0	7 8 to 9 6	7 8 to 9 6	7 8 to 9 6	Sonthal Pergha.			
ORISSA.																		
11 0	11 0	11 0	3 12 0	3 12 0	3 12 0	..	..	..	..	..	..	..	..	..	Cuttack.
V 11 13	11 13	11 13	3 6 0	3 6 0	3 6 0	..	..	..	..	..	..	..	..	..	Pooree.
W 9 8	9 0	9 12	3 15 0	4 2 0	3 13 0	4 0 to 5 0	4 0 to 5 0	4 0 to 5 0	4 0 to 6 0	4 0 to 6 0	4 0 to 6 0	7 0 to 10 0	7 0 to 10 0	7 8 to 12 3	Balasore.			
CHOTA NAGPORE.																		
South-West Frontier Agency.																		
8 0	8 0	8 0	4 6 0	4 8 0	4 4 0	4 3 to 3 4	3 12 to 3 4	3 12 to 3 4	4 0 to 3 8	5 0 to 3 8	4 0 to 3 0	7 8 to 4 11	8 0 to 4 11	7 8 to 6 0	Hazaribagh.			
8 8	8 4	8 6	4 9 6	4 10 0	4 12 0	3 12 to 3 12	3 12 to 3 12	3 12 to 3 12	6 0 to 6 0	6 0 to 6 0	4 8 to 4 8	14 1 to 14 1	14 1 to 14 1	12 0 to 12 0	Lohardugga.			
7 0	7 0	7 0	5 8 0	5 8 0	5 8 0	..	..	..	..	..	..	..	..	..	Singbhoom.
X 9 2	9 2	8 8	4 2 0	4 4 0	4 3 0	..	..	..	..	..	..	..	..	..	Manbhoom.

T In subdivisions retail prices of salt per rupee are:—Begusarai 9½ seers and Jamui 9 seers.
 U In subdivisions retail prices of salt per rupee are:—Kissengunge 8 seers and Arraah (at Ranigunge) 9 seers.
 V In Khoorda subdivision retail price of salt 11 seers per rupee.
 W At Bhadrack retail price of salt 9 seers per rupee.
 X At Govindipore retail price of salt 9 seers per rupee.

Published for general information.

P. NOLAN,
 Secy. to the Govt. of Bengal.

PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	2 12 2	2 12 3	2 14 3	2 2 6	2 1 11	2 2 3	4 6 5	4 10 2	3 11 6	2 11 4	2 12 0	2 0 4
2	Serajgunge ...	2 4 0	2 8 0	2 5 0	...	...	...	5 8 0	5 8 0	3 6 0	2 12 0	3 0 0	2 6 0
3	Dacca ...	3 0 0	3 0 0	2 10 0	2 7 0	2 7 0	1 15 0	3 0 0	3 4 0	2 12 0	2 7 0	2 12 0	2 8 0
4	Naraingunge ...	...	...	...	...	...	...	3 0 0	3 4 0	2 4 0	2 12 0	3 0 0	2 3 0
5	Chittagong ...	3 8 0	3 8 0	3 8 0	...	...	...	4 8 0	4 8 0	2 12 0	2 8 0	2 8 0	2 1 0
6	Patna ...	Red.		2 4 0	1 10 0	1 9 6	1 14 0	3 12 0	3 12 0	3 8 0	2 2 6	2 0 0	2 7 0
		White.		2 9 0									
7	Balasore ...	2 8 0	2 8 0	3 8 0	3 0 0	3 0 0	3 0 0	3 4 0	3 4 0	3 4 0	2 4 0	2 4 0	1 10 0
8	Poorce ...	...	...	...	...	...	...	...	...	...	1 5 0	1 15 0	2 2 6
9	Cuttack ...	3 0 0	3 0 0	3 0 0	...	...	...	3 0 0	3 0 0	3 4 0	2 0 0	2 3 0	2 0 0

Calcutta,
The 7th January, 1890.

PRICES PER MAUND					
JOWAR OR CHOLUM. (<i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. (<i>Pennisetum typhoides</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
2 1 7 2	7 0 2	0 0 2	2 13 7	2 12 3	3 1 6
...
...
...
...
1 12 0	1 9 6	...	...	...	...
...
...
...

OF 40 SEERS.

MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
...	2 4 8 2 6 0 2 0 0		
...
...
...
...
1 10 0 1 7 0	2 0 0 2 6 0 2 8 0		
...
...
...

in the undermentioned Marts of Bengal on the 31st December 1889.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (Cicer Arietinum.)			INDIAN-CORN OR MAIZE. (Zea Mays.)			ARHAR OR THUR. CADJAN PEA. (Cajanus indicus.)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 3 10	2 4 6	2 6 9	1 15 1	1 14 7	2 2 0	2 2 11	2 2 7	2 2 6	0 5 6	0 5 6	0 6 0	3 11 11	3 11 1	3 9 6	Calcutta.
3 0 0	3 4 0	3 5 0	...	...	...	...	...	...	...	...	...	4 2 0	4 2 0	3 13 0	Serajunge.
3 0 0	3 0 0	3 0 0	...	...	...	2 12 0	2 12 0	2 8 0	0 4 0	0 4 0	0 5 0	4 4 0	4 4 0	4 4 0	Dacca.
3 0 0	3 0 0	3 0 0	...	...	...	3 4 0	3 4 0	3 2 0	0 8 0	0 8 0	0 10 0	4 0 0	4 0 0	3 12 0	Naraingunge.
3 0 0	3 0 0	3 6 0	...	...	...	...	...	...	0 7 0	0 7 0	0 5 0	4 0 0	4 0 0	3 14 0	Chittagong.
1 12 0	1 10 6	2 1 0	1 12 0	1 9 6	1 15 0	1 14 0	1 12 0	1 12 0	0 5 0	0 5 0	0 5 3	3 14 0	3 14 0	3 13 0	Patna.
2 12 0	2 12 0	3 2 0	...	...	...	...	...	...	0 5 0	0 5 0	0 4 6	3 15 0	4 2 0	3 13 6	Balasore.
...	3 6 0	3 6 0	3 6 0	Pooree.
2 11 0	2 11 0	2 2 0	2 12 0	2 2 0	2 2 0	0 8 0	0 8 0	0 8 0	3 12 0	3 12 0	3 12 0	Cuttack.

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P. NOLAN,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	STATION OBSERVATIONS.													
			AIR PRESSURE.			WIND.		TEMPERATURE.								
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.
ORISSA.	Pooree	Pooree	30°010	30°023	—	N	134	?	?	53°5	2nd Jan.	?	56°4	?	?	65°4
	Gopalpore	Gopalpore	30°005	30°053	—0°061	NNW	209	54°2	2nd Jan.	60°4	2nd	81°5	63°2	73°4	+3°8	67°7
	False Point	False Point	30°004	30°026	—0°067	NNW	141	50°4	2nd	52°0	2nd	78°3	57°7	68°9	+0°2	65°5
	Outtack	Outtack	29°363	30°048	—0°049	Calm	21°9	84°8	28th Dec.	55°4	1st	82°8	59°7	71°3	+0°5	64°0
SOUTH-WEST BENGAL.	Balasore	Balasore	29°386	30°048	—0°059	NNW	94°8	81°3	28th	51°0	3rd	79°2	53°7	67°4	+1°2	60°9
	South-West Midnapore	Saugor Island	30°005	30°030	—0°068	North-easterly.	175	78°2	29th	55°9	2nd	73°9	59°8	67°9	+1°3	60°8
	South 24-Pergunnahs	Midnapore	29°383	30°042	—0°109	N	48°6	81°3	28th & 29th Dec.	52°2	31st Dec. to 3rd Jan.	79°6	53°2	67°4	—	62°1
	24-Pergunnahs	Calcutta	30°006	30°029	—0°077	N	69	79°5	28th	52°8	1st	76°6	56°4	66°5	+1°2	60°5
	Howrah	Burdwan	29°320	30°027	—0°089	WNW	37°1	80°5	28th	52°3	2nd	77°6	55°9	66°8	+1°4	59°7
	Hooghly	Bankoora	29°303	30°023	—0°078	W	66°7	79°1	28th & 29th Dec.	52°6	2nd	77°5	55°3	66°3	+1°4	59°5
	Burdwan	Raneegunge	29°397	30°051	—0°073	W & WN	61°0	79°5	28th & 29th Dec.	52°2	2nd	78°3	55°4	66°8	+1°9	59°1
	West Burdwan	Berhampore	29°349	30°029	—0°063	North-westerly.	42°4	78°1	28th	53°2	2nd	75°7	55°1	65°5	+1°2	57°8
	Moorshedabad	Krishnaghat	29°351	30°051	—0°056	WNW	75°8	80°3	28th	49°6	1st	77°2	53°8	65°5	+2°2	59°2
	Nuddea	Jessore	29°380	30°015	—0°079	Calm & S.W.	39°7	80°7	28th	52°5	2nd	77°1	56°5	66°9	+2°1	59°0
EAST BENGAL.	Khoolna	Chittagong	29°394	29°328	—0°064	W	42°6	80°6	28th	56°6	2nd	78°2	58°7	68°5	+2°1	63°5
	Chittagong	Chittagong Hill Tracts	Demagiri					Observations not received.								
	Backergunge	Barrisal	29°395	30°068	—0°069	Calm & NW	38°2	79°3	28th Dec.	55°1	1st	76°6	56°4	66°5	+2°1	60°6
	Noakhally	Noakhally	29°398	30°014	—	Calm	78°1	81°3	28th	53°0	2nd	77°6	54°5	66°1	—	62°2
	Furzedpore	Furzedpore	29°378	30°029	—0°063	Calm	42°9	73°8	29th Dec. & 3rd Jan.	53°5	1st	73°6	56°6	65°1	+1°8	60°7
	Dacca	Dacca	29°372	29°396	—0°066	North-easterly.	72°6	80°6	28th Dec.	54°3	1st & 2nd Jan.	77°9	56°6	67°3	+1°2	61°7
	Tipperah	Comillah	29°384	30°021	—0°061	N	15°9	80°4	28th	54°0	2nd	78°2	56°4	66°7	+3°4	63°5
	Mymensingh	Mymensingh	29°346	30°007	—0°079	Calm	32°2	73°9	28th	53°4	28th Dec.	76°3	54°9	65°6	+2°7	59°1
	Bogra	Bogra	29°325	29°392	—0°083	NW	29°2	78°8	28th	52°1	1st Jan.	76°7	53°8	65°2	+0°5	58°0
	Patna	Serajgunge	29°350	29°369	—0°088	W & WNW	8°7	78°9	28th	51°6	1st	77°0	54°4	65°6	+2°7	59°3
NORTH BENGAL.	Rajshahye	Rampo Beau-leau	29°342	30°015	—0°069	N	78°3	78°4	28th	51°7	1st	75°7	54°3	63°9	+3°5	58°9
	Maldah	Maldah	29°351	30°037	—	NW	83°6	78°6	28th	50°4	2nd	76°5	52°0	64°2	—	60°0
	Dinapore	Dinapore	29°301	30°039	—0°062	NW	47°9	78°1	28th	49°5	31st Dec. & 1st Jan.	76°4	50°9	63°6	+1°4	56°8
	Rungpore	Rungpore	29°365	30°039	—0°067	NNW	22	77°6	28th	49°1	31st Dec.	76°1	51°4	63°8	+2°9	56°1
	Julpigore	Julpigore	29°353	30°058	—0°076	N	?	?	?	50°9	30th	?	52°8	?	?	56°1
	Cooch Behar	Darjeeling	29°359	—	—	NE	74°4	53°0	29th	36°7	3rd Jan.	53°7	38°1	45°9	+6°0	41°8
	Purneah	Purneah	29°394	30°051	—0°052	Calm	27°6	75°2	28th	48°0	28th Dec.	73°8	49°0	61°4	+0°6	52°8
	North Bhagulpore	Mozufferpore						Observations suspended.								
	Darbhanga	Darbhanga	29°373	30°052	—0°067	WSW	51°1	76°4	28th Dec.	51°2	1st Jan.	75°1	53°0	64°0	+2°2	56°5
	Chumparan	Motihari	29°305	29°049	—0°055	Variable	94°7	75°6	28th	44°9	1st	74°2	48°0	61°0	+0°7	53°1
SOUTH BENGAL.	Saran	Chupra						Observations incomplete.								
	Shahabad	Dehree	29°393	30°073	—0°061	SSW	152°9	78°8	1st Jan.	47°8	3rd	76°5	52°0	64°2	+3°7	56°1
	Buxar	Buxar	29°302	30°063	—0°064	WNW	79°7	76°3	1st	47°9	2nd	74°2	51°1	62°7	+1°8	55°7
	Arrah	Arrah	29°347	30°094	—	WSW	63°1	77°3	1st	47°6	2nd	74°8	49°9	62°4	+2°6	54°7
	Gya	Gya	29°359	30°065	—0°061	S	119°0	78°5	1st	49°3	2nd	75°6	51°4	63°6	+1°6	53°1
	Patna	Bankipore	29°361	30°057	—0°079	Calm & W	42°0	76°7	1st	50°2	2nd	74°4	51°6	63°0	+2°5	56°7
	South Bhagulpore	Bhagulpore	29°362	30°034	—0°071	WNW	43°9	77°3	1st	49°1	1st & 2nd Jan.	75°3	50°4	62°9	+1°8	55°7
	Monghyr	Doonka	29°314	30°049	—	NNW	46°5	77°6	28th Dec.	48°8	2nd	75°2	51°0	63°1	—	56°7
	Sonthal Pergunnah	Hazaribagh	27°364	30°069	—0°063	South-westerly.	193°4	75°2	29th	47°4	2nd	72°1	50°3	61°2	+1°0	57°7
	Hazaribagh	Ranchee	27°333	30°058	—0°064	Variable	112°3	75°5	29th	45°1	3rd	73°1	49°5	61°3	+1°3	56°7
CHUTIA NAGPUR.	Manbhoom	Chyebasam	29°254	30°061	—	SSW	25°7	80°5	29th	49°6	2nd	78°7	52°8	65°8	—	59°7
	Sinkbhoom															

Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the 1 are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station for the period in question during the 1 stations in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 3rd of January 1890.

DISTRICT OBSERVATIONS.														Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
Average humidity at 3 A.M.	Average cloud amount at 3 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.											
			Mean for district.	Normal mean.	Since 1st of December 1889.			Since May 15th, 1889.			Average number of rainy days.	Normal number of rainy days.				
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.						
86	0.7	Nil	Nil	0.02	0.35	0.86	-0.51	74.58	55.18	+19.70	0.0	0.1	Pooree	Pooree	ORISSA.	
78	0.6	Nil											Gopalpore	False Point		
87	0.4	Nil														
76	2.6	Nil	Nil	0.01	0.05	0.58	-0.53	66.34	51.55	+14.69	0.0	0.1	Cuttack	Cuttack		
84	0.7	Nil	Nil	0.10	0.02	0.38	-0.36	40.80	52.65	-2.75	0.0	0.2	Balasore	Balasore		
87	1.0	Nil	Nil	0.06	0.04	0.40	-0.36	58.43	62.04	-3.61	0.0	0.1	Saugor Island	South-West Midnapore		
72	1.0	Nil	Nil	0.14	Nil	0.39	-0.39	46.29	51.14	-4.85	0.0	0.2	Midnapore	South 24-Pergunnahs		
82	0	Nil	Nil	0.09	Nil	0.38	-0.38	53.38	51.25	+2.13	0.0	0.2	Calcutta	24-Pergunnahs		
72	0	Nil	Nil	0.02	Nil	0.21	-0.21	43.83	46.31	-2.48	0.0	0.1	Burdwan	Howrah		
72	1.1	Nil	Nil	0.01	Nil	0.31	-0.31	55.88	52.29	+3.59	0.0	0.1	Bankoora	Hooghly		
76	0	Nil	Nil	0.02	Nil	0.15	-0.15	52.44	51.18	+1.26	0.0	0.1	Raneegunge	Baerbhoom		
87	0	Nil	Nil	0.04	Nil	0.18	-0.18	51.15	50.02	+1.13	0.0	0.1	Berhampore	West Burdwan		
82	0	Nil	Nil	0.07	Nil	0.21	-0.21	51.49	48.90	+2.59	0.0	0.2	Krishnaghar	Moorshedabad		
93	0.3	Nil	Nil	0.07	0.06	0.13	-0.27	53.39	52.71	+0.68	0.0	0.2	Jessore	Nudda		
91	2.7	Nil	Nil	0.06	0.42	0.62	-0.20	100.02	113.04	-13.02	0.0	0.2	Chittagong	Jessore		
91	0	Nil	Nil	0.05	0.68	0.60	+0.08	65.13	80.65	-15.52	0.0	0.2	Demagiri	Khoolna		
91	0	Nil	Nil	0.05	0.24	0.48	+0.24	77.82	76.37	+1.45	0.0	0.2	Barrisal	Chittagong Hill Tracts		
90	0	Nil	Nil	0.20	0.26	1.01	-0.75	90.29	106.61	-16.72	0.0	0.3	Noakholly	Backergunge		
91	0	Nil	Nil	0.05	0.02	0.18	-0.16	60.23	55.44	+4.79	0.0	0.1	Furreedpore	Noakholly		
86	1.3	Nil	Nil	0.04	Nil	0.29	-0.29	74.59	59.25	+15.34	0.0	0.1	Dacca	Furreedpore		
85	0	Nil	Nil	0.07	0.02	0.44	-0.42	55.45	68.87	-13.42	0.0	0.2	Commillah	Dacca		
93	1.4	Nil	Nil	0.09	Nil	0.24	-0.24	87.63	67.22	+20.41	0.0	0.2	Mymensingh	Tipperah		
86	0	Nil	Nil	0.05	0.01	0.19	-0.18	64.81	56.94	+7.87	0.0	0.1	Bogra	Mymensingh		
90	0.3	Nil	Nil	0.06	0.08	0.17	-0.09	55.07	52.90	+2.17	0.0	0.1	Serajgunge	Bogra		
82	0	Nil	Nil	0.01	Nil	0.14	-0.14	64.30	53.32	+0.98	0.0	0.1	Rampore Beaulash	Pubna		
96	0	Nil	Nil	0.03	Nil	0.13	-0.13	30.76	53.75	-13.99	0.0	0.1	Maldah	Rajshahy		
82	1.6	Nil	Nil	0.01	Nil	0.19	-0.19	57.37	56.00	+0.77	0.0	0.1	Dinapore	Maldah		
90	0	Nil	Nil	0.03	Nil	0.18	-0.18	85.16	73.72	+11.44	0.0	0.1	Rungpore	Dinapore		
89	0	Nil	Nil	0.01	Nil	0.17	-0.17	117.13	111.20	+5.93	0.0	0.1	Julpigoree	Rungpore		
87	2.9	Nil	Nil	0.05	Nil	0.34	-0.34	132.75	120.29	+12.46	0.0	0.2	Darjeeling	Julpigoree		
94	0.9	Nil	Nil	0.05	Nil	0.14	-0.14	74.71	58.15	+16.56	0.0	0.1	Purneah	Cooch Behar		
87	0	Nil	Nil	0.06	Nil	0.14	-0.14	48.06	42.63	+5.43	0.0	0.2	Mozufferpore	Darjeeling Hill Tracts		
89	0	Nil	Nil	0.05	Nil	0.17	-0.17	51.84	44.10	+7.74	0.0	0.2	Durbhunga	Purneah		
89	0	Nil	Nil	0.05	Nil	0.23	-0.23	63.55	46.14	+17.41	0.0	0.2	Motihari	North Bhagulpore		
74	0	Nil	Nil	0.02	Nil	0.17	-0.17	40.13	42.21	-2.08	0.0	0.1	Chupra	Durbhunga		
74	0	Nil	Nil	0.06	Nil	0.38	-0.38	40.07	39.62	+0.45	0.0	0.2	Dehree	Chumpran		
82	0.1	Nil	Nil										Buxar	Saran		
87	0	Nil	Nil	0.06	Nil	0.23	-0.23	37.07	40.02	-3.85	0.0	0.2	Gya	Shahabad		
75	0.3	Nil	Nil	0.06	Nil	0.18	-0.18	43.49	40.81	+2.68	0.0	0.2	Bankipore	Gya		
87	0	Nil	Nil	0.04	Nil	0.11	-0.11	42.43	43.08	-0.65	0.0	0.2	Bhagulpore	Patna		
80	0	Nil	Nil	0.05	Nil	0.15	-0.15	54.15	50.34	+3.81	0.0	0.2	Doomka	South Bhagulpore		
64	0	Nil	Nil	0.04	Nil	0.31	-0.31	43.03	50.11	-7.08	0.0	0.1	Hazaribagh	Monohyr		
71	0.9	Nil	Nil	0.06	Nil	0.42	-0.42	44.34	48.64	-4.30	0.0	0.2	Ranchi	Souththal Pergunnahs		
75	0.6	Nil	Nil	0.03	Nil	0.23	-0.23	38.33	46.45	-8.12	0.0	0.1	Chyebassa	Lehardugga		
														Manthoom		
														Singbhoom		

ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. denoting cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means 17 years. The means of the district are the numerical average of the rainfall return received in the district, i.e., from total rainfall at the subdivisional

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 3rd of January 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of December 1889.	Average total rainfall from 1st of December 1889.	Total rainfall since 15th May 1889.	Average rainfall from 15th May 1889 to date.
			Saturday, 25th December 1889.	Sunday, 26th December.	Monday, 27th December.	Tuesday, 28th December.	Wednesday, 1st January 1890.	Thursday, 2nd January.	Friday, 3rd January.	Number rainy days.	Rainfall week.				
ORISSA	Poores	Poores	...	...	...	...	...	...	...	NH	NH	0.21	0.74	80.65	51.08
		Khurda	...	...	...	...	...	...	...	NH	NH	NH	0.54	76.57	50.25
		Bampur	...	...	...	...	...	...	...	NH	NH	0.14	1.29	65.50	48.32
		False Point	...	...	...	...	...	...	...	NH	NH	1.04	0.84	76.80	63.25
		Gop	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Cuttack	Pipli	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Jagatsingapore	...	...	...	...	...	...	...	NH	NH	NH	0.41	73.97	46.73
		Banki	...	...	...	...	...	...	...	NH	NH	NH	0.87	52.43	49.36
		Cuttack	...	...	...	...	...	...	...	NH	NH	NH	0.37	75.18	56.52
		Kendrapara	...	...	...	...	...	...	...	NH	NH	0.20	0.61	72.63	53.76
	Balasore	Jajpore	...	...	...	...	...	...	...	NH	NH	NH	0.74	57.94	53.05
		Dharmasala	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Satipore	...	...	...	...	...	...	...	NH	NH	NH	?	72.47	?
		Chandbali	...	...	...	...	...	...	...	NH	NH	0.13	0.69	54.64	51.09
		Bhuddruck	...	...	...	...	...	...	...	NH	NH	NH	0.42	57.06	51.29
SOUTH-WEST BENGAL.	Midnapore	Sorah	...	...	...	...	...	...	...	NH	NH	NH	0.15	46.05	50.96
		Balasore	...	...	...	...	...	...	...	NH	NH	NH	0.45	44.61	57.40
		Jellapore	...	...	...	...	...	...	...	NH	NH	NH	0.32	39.59	53.29
		Haripadah	...	...	...	...	...	...	...	NH	NH	NH	0.22	54.79	53.51
		Contai	...	...	...	...	...	...	...	NH	NH	0.05	0.46	55.13	51.01
	24-Pergunnahs	Saugor Island	...	...	...	...	...	...	...	NH	NH	NH	0.40	56.74	66.74
		Tumlook	...	...	...	...	...	...	...	NH	NH	NH	0.34	49.40	50.57
		Midnapore	...	...	...	...	...	...	...	NH	NH	NH	0.38	44.26	48.32
		Ghatia	...	...	...	...	...	...	...	NH	NH	NH	0.43	43.19	54.19
		Kakrahaty	...	...	...	...	...	...	...	NH	NH	NH	?	59.05	?
	Howrah	Heria	...	...	...	...	...	...	...	NH	NH	NH	?	63.06	?
		Bhaganpore	...	...	...	...	...	...	...	NH	NH	NH	?	51.72	?
		Garbetta	...	...	...	...	...	...	...	NH	NH	NH	?	46.20	?
		Diamond Harbour	...	...	...	...	...	...	...	NH	NH	0.04	0.36	63.41	57.95
		Canning Town	...	...	...	...	...	...	...	NH	NH	NH	?	57.80	?
SOUTH-EAST BENGAL.	Hooghly	Alipore Jail	...	...	...	...	...	...	...	NH	NH	NH	0.53	51.80	55.33
		Barrackpore	...	...	...	...	...	...	...	NH	NH	NH	0.36	51.79	49.45
		Dum-Dum	...	...	...	...	...	...	...	NH	NH	NH	0.39	54.58	51.19
		Barasat	...	...	...	...	...	...	...	NH	NH	NH	0.24	57.61	49.38
		Buserhat	...	...	...	...	...	...	...	NH	NH	NH	0.30	60.92	54.17
	Burdwan	Culina	...	...	...	...	...	...	...	NH	NH	NH	0.25	41.32	43.06
		Burdwan	...	...	...	...	...	...	...	NH	NH	NH	0.22	47.07	47.52
		Cutwa	...	...	...	...	...	...	...	NH	NH	NH	0.12	43.11	47.35
		Raneogunge	...	...	...	...	...	...	...	NH	NH	NH	0.12	55.83	48.80
		Manukur	...	...	...	...	...	...	...	NH	NH	NH	?	53.71	?
	Bankoora	Bankoora	...	...	...	...	...	...	...	NH	NH	NH	0.25	56.79	51.16
		Bishenpore	...	...	...	...	...	...	...	NH	NH	NH	0.27	57.49	51.60
		Malaria	...	...	...	...	...	...	...	NH	NH	NH	0.23	51.58	51.58
		Khatra	...	...	...	...	...	...	...	NH	NH	NH	0.40	65.91	53.73
		Indas	...	...	...	...	...	...	...	NH	NH	NH	?	45.14	?
Beerbhoom	Kotalpore	...	...	...	...	...	...	...	NH	NH	NH	?	48.40	?	
	Anda	...	...	...	...	...	...	...	NH	NH	NH	?	40.44	?	
	Gangajalghati	...	...	...	...	...	...	...	NH	NH	NH	?	59.17	?	
	Kaipore	...	...	...	...	...	...	...	NH	NH	NH	?	58.35	?	
	Sonamukhi	...	...	...	...	...	...	...	NH	NH	NH	?	54.33	?	
Nuddes	Bh. Soory	...	...	...	...	...	...	...	NH	NH	NH	0.13	59.06	53.27	
	Hetampore	...	...	...	...	...	...	...	NH	NH	NH	0.14	47.07	53.80	
	Rampore Haul	...	...	...	...	...	...	...	NH	NH	NH	0.20	47.78	51.02	
	Bolpore	...	...	...	...	...	...	...	NH	NH	NH	?	54.97	?	
	Murarai	...	...	...	...	...	...	...	NH	NH	NH	?	53.10	?	
Khoolna	Banaghat	...	...	...	...	...	...	...	NH	NH	NH	0.25	55.86	46.61	
	Kishnaghat	...	...	...	...	...	...	...	NH	NH	NH	0.11	43.95	46.74	
	Choodanga	...	...	...	...	...	...	...	NH	NH	NH	0.20	49.81	50.72	
	Meherpore	...	...	...	...	...	...	...	NH	NH	NH	0.24	53.05	47.23	
	Kooshia	...	...	...	...	...	...	...	NH	NH	NH	0.19	55.91	54.05	
Jessore	Satkhiria	...	...	...	...	...	...	...	NH	NH	0.61	0.43	59.51	54.62	
	Bagirhat	...	...	...	...	...	...	...	NH	NH	0.31	0.30	54.06	50.83	
	Khoolna	...	...	...	...	...	...	...	NH	NH	0.18	0.42	63.78	54.25	
	Nakipur	...	...	...	...	...	...	...	NH	NH	0.30	?	?	?	
	Narail	...	...	...	...	...	...	...	NH	NH	NH	0.25	49.47	48.96	
Moorshedabad	Jessore	...	...	...	...	...	...	...	NH	NH	NH	0.31	62.35	53.80	
	Jhenidah	...	...	...	...	...	...	...	NH	NH	NH	0.22	50.56	53.02	
	Magorah	...	...	...	...	...	...	...	NH	NH	NH	0.21	56.48	48.92	
	Bongong	...	...	...	...	...	...	...	NH	NH	NH	0.38	46.01	61.42	
	Kandi	...	...	...	...	...	...	...	NH	NH	NH	0.30	55.38	50.70	
Chittagong	Berhampore	...	...	...	...	...	...	...	NH	NH	NH	0.19	46.16	50.77	
	Lalbagh	...	...	...	...	...	...	...	NH	NH	NH	0.18	47.15	50.65	
	Asimgunge	...	...	...	...	...	...	...	NH	NH	NH	0.13	47.15	50.65	
	Jangpore	...	...	...	...	...	...	...	NH	NH	NH	0.14	55.01	48.68	
	Lalgaia	...	...	...	...	...	...	...	NH	NH	NH	0.14	59.03	50.39	
Hill Tracts.	Jagunee	...	...	...	...	...	...	...	NH	NH	NH	?	43.25	?	
	Akhrigunj	...	...	...	...	...	...	...	NH	NH	NH	?	42.81	?	
	Patkabari	...	...	...	...	...	...	...	NH	NH	NH	?	?	?	
	Cor's Bazar	...	...	...	...	...	...	...	NH	NH	0.13	0.45	123.59	135.06	
	Chittagong	...	...	...	...	...	...	...	NH	NH	0.71	0.75	76.42	83.83	
Backerszeunge	Kutubdia	...	...	...	...	...	...	...	NH	NH	0.05	?	113.09	?	
	Satkanya	...	...	...	...	...	...	...	NH	NH	0.10	?	63.66	?	
	Rangmati	...	...	...	...	...	...	...	NH	NH	0.40	0.64	63.04	63.15	
	Ruma	...	...	...	...	...	...	...	NH	NH	0.56	0.56	67.20	70.33	
	Patuakhally	...	...	...	...	...	...	...	NH	NH	0.05	0.55	87.30	87.16	
Bhola	Persepore	...	...	...	...	...	...	...	NH	NH	0.30	0.34	72.16	69.37	
	Burrial	...	...	...	...	...	...	...	NH	NH	0.44	0.30	73.63	67.02	
	Bhola	...	...	...	...	...	...	...	NH	NH	0.27	0.64	70.26	81.67	

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 3rd of January 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of December 1889.	Average total rainfall from 1st of December 1889.	Total rainfall since 15th May 1889.	Average rainfall from 15th May 1889 to date.
			Saturday, 28th December 1889.	Sunday, 29th December.	Monday, 30th December.	Tuesday, 31st December.	Wednesday, 1st January 1890.	Thursday, 2nd January.	Friday, 3rd January.	Number of rainy days.	of rainfall week.				
EAST BENGAL—contd.	Noakholly	Gournaddi	Nil	Nil	0.35	?	92.89	?	
		Basphal	Nil	Nil	0.12	6.75	102.17	107.51	
		Noakholly	Nil	Nil	0.40	1.25	78.38	106.15	
		Fenny	Nil	Nil	0.29	?	82.96	?	
	Furreedpore	Harishpore	Nil	Nil	?	?	80.75	?	
		Ramganj	Nil	Nil	0.06	0.19	60.86	54.97	
	Dacca	Madaripore	Nil	Nil	Nil	0.16	63.80	55.98	
		Furreedpore	Nil	Nil	Nil	0.19	56.29	52.61	
	Hill Tipperah	Munshigunge	Nil	Nil	Nil	0.40	76.33	60.61	
		Dacca	Nil	Nil	Nil	0.23	73.69	58.08	
		Narainkunge	Nil	Nil	Nil	0.35	80.36	59.45	
		Manickgunge	Nil	Nil	Nil	0.16	67.99	49.29	
	Tipperah	Joydebpore	Nil	Nil	Nil	?	60.01	?	
		Agartola	Nil	Nil	Nil	0.43	44.08	60.25	
		Comilla	Nil	Nil	Nil	0.52	62.17	75.49	
		Chandpore	Nil	Nil	Nil	0.43	64.82	75.27	
	Mymensingh	Brahmunberia	Nil	Nil	Nil	0.37	50.08	61.00	
		Ranchandrapore.	Nil	Nil	Nil	?	60.14	?	
		Nasirnagar.	Nil	Nil	Nil	?	30.39	?	
		Daridkandi	Nil	Nil	Nil	?	33.29	?	
	Kasba	Lakeham	Nil	Nil	Nil	?	32.44	?	
		Kishoregunge	Nil	Nil	Nil	?	69.09	?	
		Atia (Tangail)	Nil	Nil	Nil	0.29	69.56	60.58	
		Mymensingh	Nil	Nil	Nil	0.10	61.00	54.98	
	Bogra	Jamulpore	Nil	Nil	Nil	0.29	94.55	73.63	
		Netrokona	Nil	Nil	Nil	0.31	88.14	64.75	
		Subornahally	Nil	Nil	Nil	0.19	125.02	72.61	
		Durgapore	Nil	Nil	Nil	?	67.43	?	
	Sherepore Town	Deuaganj	Nil	Nil	Nil	?	119.98	?	
		Sherepore Town	Nil	Nil	Nil	?	87.69	?	
		Deuaganj	Nil	Nil	Nil	?	56.31	?	
		Pubna	Nil	Nil	Nil	0.15	49.87	53.30	
Bogra	Seraikunge	...	...	...	...	...	...	Nil	Nil	0.13	0.17	00.26	52.43
	Sherepore	...	...	...	...	...	...	Nil	Nil	Nil	0.23	62.66	57.08
	Nowkulla	...	...	...	...	...	...	Nil	Nil	Nil	0.18	60.96	53.57
	Bogra	...	...	...	...	...	...	Nil	Nil	0.03	0.14	79.63	69.17
Rajshahye	Panchbihi	...	...	...	...	...	...	Nil	Nil	Nil	0.19	64.96	55.41
	Beaulah	...	...	...	...	...	...	Nil	Nil	Nil	0.11	46.20	52.52
	Natore	...	...	...	...	...	...	Nil	Nil	Nil	0.12	68.84	54.51
	Naogon	...	...	...	...	...	...	Nil	Nil	Nil	0.20	67.87	59.54
Maldah	Lalpor	...	...	...	...	...	...	Nil	Nil	Nil	?	36.72	?
	Manda	...	...	...	...	...	...	Nil	Nil	Nil	?	45.27	?
	Maldah	...	...	...	...	...	...	Nil	Nil	Nil	0.17	50.53	51.29
	Chanchal	...	...	...	...	...	...	Nil	Nil	Nil	0.07	28.96	56.39
Dinapore	Gajol	...	...	...	...	...	...	Nil	Nil	Nil	?	39.79	?
	Sibganj	...	...	...	...	...	...	Nil	Nil	Nil	?	51.77	?
	Mohadebpore	...	...	...	...	...	...	Nil	Nil	Nil	0.18	53.03	55.83
	Churamon	...	...	...	...	...	...	Nil	Nil	Nil	0.13	51.82	51.93
Rungpore	Raigunge	...	...	...	...	...	...	Nil	Nil	Nil	0.18	52.25	57.25
	Dinapore	...	...	...	...	...	...	Nil	Nil	Nil	0.11	67.54	63.02
	Rainorchat	...	...	...	...	...	...	Nil	Nil	Nil	0.29	61.28	59.90
	Thakurgaon	...	...	...	...	...	...	Nil	Nil	Nil	?	87.47	?
Jalpigore	Bhawanigunge (Gyabanda).	...	...	...	...	...	...	Nil	Nil	Nil	0.19	87.53	61.29
	Rungpore	...	...	...	...	...	...	Nil	Nil	Nil	0.10	74.41	73.96
	Kurigram	...	...	...	...	...	...	Nil	Nil	Nil	0.19	90.07	72.83
	Bagdogra	...	...	...	...	...	...	Nil	Nil	Nil	0.22	87.09	84.64
Jalpigore	Nilphamari.	...	...	...	...	...	...	Nil	Nil	Nil	?	79.00	?
	Ulipore	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Jalpigore	...	...	...	...	...	...	Nil	Nil	Nil	0.11	123.27	116.45
	Alipore	...	...	...	...	...	...	Nil	Nil	Nil	?	119.58	?
Cooch Behar.	Falacolla	...	...	...	...	...	...	Nil	Nil	Nil	?	127.43	?
	Debaganj	...	...	...	...	...	...	Nil	Nil	Nil	?	89.02	?
	Bhogatpore (Nagarkatta).	...	...	...	...	...	...	Nil	Nil	Nil	?	138.51	?
	Dinhat	...	...	...	...	...	...	Nil	Nil	Nil	0.26	98.60	59.72
Darjeeling Hill.	Cooch Behar	...	...	...	...	...	...	Nil	Nil	Nil	0.12	125.34	117.86
	Mickilgunge	...	...	...	...	...	...	Nil	Nil	Nil	0.20	121.37	105.21
	Matabhanga	...	...	...	...	...	...	Nil	Nil	Nil	0.15	117.63	111.16
	Buxa	...	...	...	...	...	...	Nil	Nil	Nil	0.21	191.08	191.71
Purneah	Siliguri	...	...	...	...	...	...	Nil	Nil	0.01	0.11	120.71	102.50
	Darjeeling	...	...	...	...	...	...	Nil	Nil	Nil	0.29	127.57	108.14
	Kalimping	...	...	...	...	...	...	Nil	Nil	Nil	0.43	91.36	82.06
	Kurseong	...	...	...	...	...	...	Nil	Nil	Nil	?	168.25	?
North Bhagalpore.	Kurseong	...	...	...	...	...	...	Nil	Nil	Nil	0.16	102.37	69.31
	Kissengunge	...	...	...	...	...	...	Nil	Nil	Nil	0.11	79.61	63.27
	Arrareah	...	...	...	...	...	...	Nil	Nil	Nil	0.18	63.45	61.10
	Purneah	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
Mozufferpore	Gondwara	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Balarampore	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Matiari	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Kaliaganj	...	...	...	...	...	...	Nil	Nil	Nil	0.10	60.85	49.00
Darbhanga	Maddapore	...	...	...	...	...	...	Nil	Nil	Nil	0.15	67.26	47.74
	Noopool	...	...	...	...	...	...	Nil	Nil	Nil	?	87.85	?
	Protaganj	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Tajpore	...	...	...	...	...	...	Nil	Nil	Nil	0.20	42.44	43.71
Mozufferpore	Durbinaga	...	...	...	...	...	...	Nil	Nil	Nil	0.19	50.01	45.35
	Madhaba	...	...	...	...	...	...	Nil	Nil	Nil	0.13	63.11	43.36
	Nahera	...	...	...	...	...	...	Nil	Nil	Nil	?	55.84	?
	Kashera	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
Mozufferpore	Kashera	...	...	...	...	...	...	Nil	Nil	Nil	0.16	65.06	58.00
	Sitamari	...	...	...	...	...	...	Nil	Nil	Nil	0.16	48.41	44.79
	Mozufferpore	...	...	...	...	...	...	Nil	Nil	Nil	0.14	82.52	41.41
	Hajipore	...	...	...	...	...	...	Nil	Nil	Nil	?	37.00	?
Mozufferpore	Para	...	...	...	...	...	...	Nil	Nil	Nil	?	41.03	?
	Mahua	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Shahar	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Pupri	...	...	...	...	...	...	Nil	Nil	Nil	?	47.00	?

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 3rd of January 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rain-fall since 1st of December 1889.	Average total rain-fall from 1st of December 1889.	Total rain-fall since 15th May 1889.	Average rainfall from 15th May 1889 to date.
			Saturday 28th December 1889.	Sunday 29th December.	Monday 30th December.	Tuesday 31st December.	Wednesday 1st January 1890.	Thursday 2nd January.	Friday 3rd January.	Number of rainy days.	Rainfall week.				
NORTH BEHAR—concluded.	Chumpran...	Motihari	...	...	...	...	...	...	...	NH	NH	NH	0.20	74.70	44.30
		Bettiah	...	...	...	...	...	...	...	NH	NH	NH	0.20	58.20	47.40
		Bagaha	...	...	...	...	...	...	...	NH	NH	NH	?	69.87	?
		Burhuras	...	...	...	...	...	...	...	NH	NH	NH	?	51.70	?
SOUTH BEHAR	Saran	Gopalgunge	...	...	...	...	...	...	...	NH	NH	NH	0.18	35.48	45.73
		Sewan	...	...	...	...	...	...	...	NH	NH	NH	0.16	44.20	45.24
		Chuprah	...	...	...	...	...	...	...	NH	NH	NH	0.19	40.74	39.94
		Dehree	...	...	...	...	...	...	...	NH	NH	NH	0.28	47.44	37.88
	Shahabad	Bhaboonah	...	...	...	...	...	...	...	NH	NH	NH	0.07	42.06	39.31
		Sasaram	...	...	...	...	...	...	...	NH	NH	NH	0.39	38.16	40.28
		Arrah	...	...	...	...	...	...	...	NH	NH	NH	0.31	29.41	40.22
		Mohantia	...	...	...	...	...	...	...	NH	NH	NH	0.23	42.09	39.72
		...	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		...	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Gya	Aurungabad	...	...	...	...	...	...	...	NH	NH	NH	0.38	35.42	42.30
		Gya	...	...	...	...	...	...	...	NH	NH	NH	0.27	39.85	42.08
		Nowadah	...	...	...	...	...	...	...	NH	NH	NH	0.25	39.59	39.44
		Jehanabad	...	...	...	...	...	...	...	NH	NH	NH	0.22	33.40	39.44
		Arwal	...	...	...	...	...	...	...	NH	NH	NH	?	34.34	?
		Daudnagar	...	...	...	...	...	...	...	NH	NH	NH	?	26.09	?
		Sherrghati	...	...	...	...	...	...	...	NH	NH	NH	?	29.29	?
		Rajauli	...	...	...	...	...	...	...	NH	NH	NH	?	17.92	?
		PakriBarawan	...	...	...	...	...	...	...	NH	NH	NH	?	31.90	?
		...	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Patna	Patna	...	...	...	...	...	...	...	NH	NH	NH	0.21	51.49	41.46
		Disapore	...	...	...	...	...	...	...	NH	NH	NH	0.22	48.53	41.02
		Behar	...	...	...	...	...	...	...	NH	NH	NH	0.16	41.08	41.32
		Barrh	...	...	...	...	...	...	...	NH	NH	NH	0.15	35.83	39.37
		Bickram Hills	...	...	...	...	...	...	...	NH	NH	NH	?	43.28	?
	Monghyr	Begoesrai	...	...	...	...	...	...	...	NH	NH	NH	0.09	47.02	39.63
		Monghyr	...	...	...	...	...	...	...	NH	NH	NH	0.09	41.07	45.09
		Jamui	...	...	...	...	...	...	...	NH	NH	NH	0.10	39.48	45.36
		Gopri	...	...	...	...	...	...	...	NH	NH	NH	?	29.19	?
		Sheikpura	...	...	...	...	...	...	...	NH	NH	NH	?	43.32	?
	South Bhagulpore.	Bhagulpore	...	...	...	...	...	...	...	NH	NH	NH	0.12	45.06	41.76
		Banias	...	...	...	...	...	...	...	NH	NH	NH	0.17	38.34	42.23
		Kolgong	...	...	...	...	...	...	...	NH	NH	NH	?	46.97	?
		Bangson	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Sonthal Pergunnahs.	Rajmehal	...	...	...	...	...	...	...	NH	NH	NH	0.07	59.90	52.06
		Godda	...	...	...	...	...	...	...	NH	NH	NH	0.14	49.04	47.14
		Pakour	...	...	...	...	...	...	...	NH	NH	NH	0.08	78.59	50.08
		Nya Doemka	...	...	...	...	...	...	...	NH	NH	NH	0.25	50.75	51.71
		Deoghur	...	...	...	...	...	...	...	NH	NH	NH	0.20	40.40	50.20
		Jamara	...	...	...	...	...	...	...	NH	NH	NH	0.17	45.21	45.74
		Mohaguma	...	...	...	...	...	...	...	NH	NH	NH	?	50.41	?
		Namhat	...	...	...	...	...	...	...	NH	NH	NH	?	53.87	?
CHUTIA NAG-PUR.	Hazariabagh	Pachamba (Girdi)	...	...	...	...	...	...	...	NH	NH	NH	0.20	38.90	47.10
		Hazariabagh	...	...	...	...	...	...	...	NH	NH	NH	0.34	49.10	46.54
		Semtaurab	...	...	...	...	...	...	...	NH	NH	NH	0.33	39.24	46.41
		Mahudi Hills	...	...	...	...	...	...	...	NH	NH	NH	0.36	47.37	47.37
		Jhoomra Hills	...	...	...	...	...	...	...	NH	NH	NH	0.32	45.00	52.05
		Barhi	...	...	...	...	...	...	...	NH	NH	NH	?	51.36	?
		Chakra	...	...	...	...	...	...	...	NH	NH	NH	?	46.04	?
		Karagdeha	...	...	...	...	...	...	...	NH	NH	NH	?	50.35	?
		Ramghar	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		...	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Lohardugga	Lohardugga	...	...	...	...	...	...	...	NH	NH	NH	0.23	45.24	50.46
		Ranchi	...	...	...	...	...	...	...	NH	NH	NH	0.31	53.01	51.53
		Palamow	...	...	...	...	...	...	...	NH	NH	NH	0.32	54.16	48.52
		Silli	...	...	...	...	...	...	...	NH	NH	NH	?	33.80	?
		Balamat	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Hossainabad	...	...	...	...	...	...	...	NH	NH	NH	?	44.48	?
	Singbhoom	Ghyebasa	...	...	...	...	...	...	...	NH	NH	NH	0.41	45.76	51.01
		Chakradhar-pore.	...	...	...	...	...	...	...	NH	NH	NH	?	40.80	?
		Chattilla	...	...	...	...	...	...	...	NH	NH	NH	?	58.70	?
		Bakaragura	...	...	...	...	...	...	...	NH	NH	NH	?	53.80	?
	Manbhoom	Purulia	...	...	...	...	...	...	...	NH	NH	NH	0.24	45.48	48.54
		Gobindpore	...	...	...	...	...	...	...	NH	NH	NH	0.22	33.19	44.51
		Nagbunath-pore.	...	...	...	...	...	...	...	NH	NH	NH	?	45.91	?
		Sarrabhoom	...	...	...	...	...	...	...	NH	NH	NH	?	44.39	?
		Jhaida	...	...	...	...	...	...	...	NH	NH	NH	?	51.42	?
		Chas	...	...	...	...	...	...	...	NH	NH	NH	?	58.50	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 7th January 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 3RD
JANUARY 1890.**

THE meteorology of the week ending the 27th of December 1889 had been important from the formation of a cyclonic storm in the south of the Bay which had advanced in a north-westerly direction, crossing the Madras coast between Masulipatam and Nellore on the afternoon or evening of December 26th. An advance of humid winds had passed over Bengal in connection with the storm, and heavily-clouded skies and in a few cases light rain showers had occurred over the southern districts of the province. With the gradual disappearance of the storm, and on its passing inland on the 26th, the weather in Bengal began to improve, and on the 26th and 27th conditions were decidedly less disturbed than they had been, while the skies had even commenced to clear.

The gradual return to the normal conditions for the cold weather season which had therefore commenced at the close of last week, continued at the beginning of the present week, and by the middle of the week conditions had become nearly normal. In the earlier part of the week, therefore, temperature, and particularly the night temperatures, fell rather rapidly, humidity also decreased, and the sky cleared rather quickly, while rainfall became entirely absent.

Pressure—Rose very slowly on the first day of the week, it then fell moderately for the next three or four days, commencing to rise again rather briskly on the 2nd January, which rise continued on the 3rd. The mean pressure of the province for the week has, however, been very considerably in defect of the normal, the defect usually ranging from five to about eight hundredths of an inch. This defect has been fairly equally distributed over the whole province.

Temperature—Has fallen generally during the week, but still the average mean temperature of the province has been nearly 2° above the normal. This excess has been largest in South-West and East Bengal and in South Behar, where the excess has equalled between two and three degrees.

The general temperature recorded during the week in the different districts of the province can be seen from the following table, where the average maximum, minimum and mean temperatures at nine typical stations are compared with their normal values for the same period. It will be seen that exceptionally high day temperatures have been recorded at Darjeeling, where the actual is almost 10° higher than the normal. The night temperatures at the same station exceed the normal by three degrees. Generally speaking, however, the excess temperatures are fairly equally divided over both day and night:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 3rd January 1890.

	Normal mean maximum temperature for the week ending 3rd January.	Actual mean maximum temperature for the week ending 3rd January 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 3rd January.	Actual mean minimum temperature for the week ending 3rd January 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 3rd January.	Actual mean daily temperature for the week ending 3rd January 1890.	Variation of actual mean from the normal.
Cuttack	83.5	82.5	+0.5	59.2	59.7	+0.5	70.8	71.3	+0.5
Calcutta	75.2	76.6	+1.4	55.3	56.4	+1.2	65.3	66.5	+1.2
Dacca	76.7	77.9	+1.2	55.4	56.6	+1.2	66.1	67.3	+1.2
Burdwan	76.5	77.6	+1.1	53.9	55.9	+2.0	65.4	66.8	+1.4
Patna	71.9	74.4	+2.5	48.7	51.6	+2.9	60.5	63.0	+2.5
Gya	73.9	75.8	+1.7	50.9	51.4	+0.5	62.0	63.0	+1.0
Purneah	74.2	75.8	+1.6	49.1	49.0	-0.1	60.8	61.4	+0.6
Hazaribagh	71.0	72.1	+1.1	49.3	50.3	+1.0	60.2	61.2	+1.0
Darjeeling	44.0	53.7	+9.2	34.8	38.1	+3.3	39.9	45.9	+6.0

Rainfall—Has been entirely absent from the province throughout the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 3rd of January 1890 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of Decem-ber 1889.		Since 15th May 1889.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average num-ber in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa*	84°8	51°0	80°4	50°0	70°0	+1°5	Nil	0°05	-0°05	0°0	0°2	-0°2	0°12	0°58	62°01	53°54
South-West Bengal	81°3	40°6	77°2	55°0	66°4	+2°3	Nil	0°06	-0°06	0°0	0°1	-0°1	0°01	0°29	52°37	51°20
East Bengal	81°5	53°0	76°0	56°2	66°5	+2°2	Nil	0°07	-0°07	0°0	0°2	-0°2	0°15	0°42	75°53	73°75
North Bengal*	78°0	40°1	70°4	52°8	64°6	+1°8	Nil	0°03	-0°03	0°0	0°1	-0°1	0°01	0°17	73°12	69°57
North Behar*	76°4	44°0	74°9	50°0	62°1	+1°5	Nil	0°05	-0°05	0°0	0°1	-0°1	Nil	0°16	57°06	46°21
South Behar	78°8	47°6	75°1	51°1	63°1	+2°6	Nil	0°05	-0°05	0°0	0°1	-0°1	Nil	0°22	44°16	43°35
Chutia Nagpur	75°5*	45°1*	72°0*	40°0*	61°2*	+1°1*	Nil	0°06	-0°05	0°0	0°1	-0°1	Nil	0°33	43°08	48°50

* Pooree, Julpigoree, Chupra and Chyebass not included.

METEOROLOGICAL OFFICE, BENGAL ;

The 7th January 1890.

A. PEDLER,

Meteorological Reporter to the Govt. of Bengal.

Abstract of the results of Meteorological Observations taken at the Alipore
Observatory in the month of December 1889.

	Inches.	Date.	Hour.
The mean pressure of the month	29.987		
The average pressure of December from 24 years' registers ...	30.027		
The highest pressure in the month	30.137	18th	10
The lowest pressure in the month	29.837	31st	16
The range of pressure	0.301		
<hr/>			
The total number of hours of bright sunshine during the month	Hours. 254.6		
The maximum possible number of hours of sunshine ...	332.8		
<hr/>			
The mean temperature of the month	66.2		
The average temperature of December from 24 years' registers	68.0		
The highest temperature in the month	80.1	26th.	
The lowest temperature in the month	51.3	14th.	
The range of temperature during the month	28.8		
The mean daily range of temperature	19.2		
The greatest range of temperature in one day	23.2	14th.	
<hr/>			
The mean humidity of the month	Per cent. 74		
The average humidity of December from 24 years' registers ...	71		
<hr/>			
The mean vapour tension of the month	Inches. 0.474		
The average vapour tension of December from 9 years' registers	0.476		
The mean cloud proportion of the month	1.49		
The average cloud proportion of December from 12 years' registers	1.74		
<hr/>			
The total rainfall of the month	Inches. 0.03		
The total rainfall indicated by a Beckley's self-registering rain-gauge (mouth of the gauge about 52 feet above the ground)	0.03		
The average fall of December from 48 years' registers ...	0.23		
The greatest fall in 24 hours	0.02	25th.	
<hr/>			
The number of rainy days in the month	Days. 2		
The average number of rainy days in December from 24 years' registers	1		
<hr/>			
The mean maximum equilibrium temperature of solar radiation during the month	129.7		
The mean difference of sun and air temperatures	53.4		
The greatest sun temperature	137.2	2nd.	
The greatest excess of sun over air temperature	61.3	2nd.	
The mean temperature of the nocturnal radiation thermometer on woollen cloth	50.0		
The mean depression of the nocturnal radiation thermometer below the minimum air temperature at 4 feet above the ground	7.2		
The greatest depression of the nocturnal radiation thermometer below the minimum air temperature	9.5	15th.	
<hr/>			
The mean movement of the wind per day	Miles. 54.3		
The greatest movement of the wind in one day	93.0	24th.	
The greatest movement of the wind in one hour	11.0	8th 11 to noon.	
The number of hours with winds from each of the 8 points—			
N. 336, N.E. 91, E. 42, S.E. 9, S. 5, S.W. 6, W. 28, N.W. 115, Calm 112.			

The results of observations at the Alipore Observatory are not rigorously comparable with the registers of past years (at the Park Street Observatory). The barometer is about 3 feet higher at Alipore, and, other things being equal, reads therefore .003 lower. The diurnal range of temperature is also greater at Alipore, and the mean temperature apparently about 2.3° lower; and finally, the thermometer which furnished the record of temperature at the Surveyor-General's Office during 20 years and upwards is found to read 0.6 higher than the Kew standard thermometer, which is the standard of reference at the present Observatory.

C. LITTLE,

METEOROLOGICAL OFFICE, INDIA;
Calcutta, the 6th January 1890.

For Meteorological Reporter to the Govt. of India.

**Results of the Meteorological Observations taken at the Alipore Observatory from
29th December 1889 to 4th January 1890.**

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1889.		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Dec.	29th	128.7	9.3	30.000	68.0	76.5	16.4	60.1	61.2	0.450	56.0	66	NNE, N and NNW	85	Nil	Chiefly clear, P.
"	30th	128.5	9.1	29.989	66.3	76.5	18.3	58.2	60.5	.452	56.1	71	N and NNW	77	"	Clear, P.
"	31st	128.4	9.2	.897	64.1	74.7	20.6	54.1	58.9	.432	54.9	74	NE, WNW and NW	53	"	Clear, P, =.
1890.																
Jan.	1st	128.5	8.7	.861	64.3	75.7	22.8	52.9	57.5	.335	51.6	68	SW, WNW and calm	70	"	Clear, P, =.
"	2nd	129.1	9.1	.922	63.9	74.8	21.1	53.7	57.3	.367	51.8	67	W and NNW	75	"	Clear, P.
"	3rd	125.8	8.8	.954	64.0	74.7	20.4	54.3	58.6	.421	54.2	71	N and NNW	48	"	Chiefly clear, P, =.
"	4th	134.7	7.1	.947	65.7	75.9	18.7	57.2	61.9	.504	59.2	80	NNW and calm			Partially cloudy, P.

The mean pressure of the seven days	...	...	...	...	Inches.
The average pressure of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	29.936
					30.031
The total number of hours of bright sunshine	...	...	...	...	Hours.
The maximum possible number of hours of sunshine	...	...	...	...	61.3
					75.2
					°
The mean temperature of the seven days	...	...	...	...	65.2
The average temperature of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	67.0
The extreme variation of temperature	...	...	...	...	23.6
The maximum temperature	...	...	...	...	76.5
					Miles.
The highest velocity of the wind in one hour up to noon of the 4th January 1890	...	...	...	...	9
					lbs.
The highest pressure of wind on one square foot	...	...	...	...	Not measurable.
					%
The mean relative humidity	...	...	...	...	71
The average relative humidity of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	71
					Inches.
The total fall of rain from 29th December 1889 to 4th January 1890	...	...	...	...	Nil
The average fall of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	Nil
The total fall from 1st January 1889 to 4th January 1890	...	...	...	...	57.47
The average fall of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	63.24

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

P. dew; = fog.

The total rainfall in the year 1889	...	...	...	...	Inches.
The average rainfall of the corresponding period for 24 years, S.-G.'s Office	...	...	...	...	57.47
					63.24

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;
Calcutta, the 6th January 1890.

Abstract of the Results of the Barometric and Thermometric Observations taken at 10 a.m. at the Meteorological Office, Chowringhee, in the month of December 1889.

	Inches.	Data.
The mean pressure at 10 A.M. during the month ...	30.063	
The mean temperature at 10 A.M. during the month ...	70.5	
The highest temperature during the month ...	81.4	24th and 26th.
The lowest temperature during the month ...	52.1	14th.
The absolute range of temperature during the month ...	29.3	
The mean daily range of temperature during the month ...	20.0	
The greatest range of temperature in one day during the month ...	23.8	14th.
The mean 10 A.M. humidity during the month ...	67	
The mean 10 A.M. vapour tension during the month ...	501	
The total rainfall of the month ...	0.05	
The greatest fall in 24 hours ...	0.05	26th.
The number of rainy days in the month ...	1	

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA,

The 6th January 1890.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 29th December 1889 to 4th January 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
Dec. 1889 ...	29th ...	30.085	68.6	77.1	17.0	60.1	70.0	61.7	.440	55.4	60	.....
" " ...	30th ...	.080	66.7	75.9	18.5	57.4	68.1	62.2	.482	57.9	70	.....
" " ...	31st ...	.063	65.4	75.9	21.0	54.9	68.6	63.2	.509	59.4	72	.....
Jan. 1890 ...	1st ...	29.951	65.5	75.9	20.9	55.0	68.6	60.7	.427	54.5	61	.....
" " ...	2nd ...	30.006	65.3	76.1	21.7	54.4	68.0	61.2	.443	55.6	63	.....
" " ...	3rd ...	.021	65.2	75.5	20.6	54.9	67.6	60.2	.424	54.4	62	.....
" " ...	4th ...	29.996	67.3	77.7	20.8	56.9	69.8	63.6	.506	59.3	69	.....

The mean 10 A.M. pressure of the seven days ... 30.029

The mean temperature of the seven days ... 66.3

The extreme variation of temperature ... 23.3

The maximum temperature ... 77.7

The mean 10 A.M. relative humidity of the seven days ... 65

The total fall of rain from 29th December 1889 to 4th January 1890 ... Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA ;

The 6th January 1890.

MEMORANDUM.

THE chief features in connection with the vital statistics of the principal Municipalities in Bengal for the week ending 21st December 1889, are the following:—

1. That births and deaths were registered in these Municipalities at the rates, respectively, of 25·2 and 30·2 per 1,000 of population, as opposed to 26·9 and 31·6 per 1,000 in the preceding week ending 14th December, indicating a retrogression in the registration of both the events.

2. That these events were returned in the highest proportions from the following Municipalities:—

<i>Births.</i>				<i>Deaths.</i>			
			Ratio per mille.				Ratio per mille.
Arrah	...	...	50·2	Poori	...	...	90·2
Narainganj	...	...	41·4	Jessore	...	...	73·5
Serampore	...	...	39·3	Hughli and Chinsurah	...	...	72·2
Hughli and Chinsurah	...	...	37·7	Serampore	...	...	70·7
Rampore Beaulah	...	...	36·8	Narainganj	...	...	70·4
Ranaghat	...	...	35·9	Utterpara	...	...	56·6
Comillah	...	...	34·7	Purneah	...	...	48·5
Bhagulpore	...	...	34·4	Comillah	...	...	46·2
Durbhanga	...	...	33·0	Burdwan	...	...	45·8
Howrah	...	...	32·1	Ranaghat	...	...	41·9
Santipore	...	...	31·5	Bhagulpore	...	...	34·4
Jessore	...	...	30·6	Rampore Beaulah	...	...	34·2
				Monghyr	...	...	33·4
				Gya	...	...	32·1
				Chittagong	...	...	30·5

3. That the mortality from the principal death-causes stood as follows, in comparison with that of the preceding week:—

				Ratio per mille during the weeks ending—	
				21st December 1889.	14th December 1889.
Cholera	...	...	...	2·4	4·7
Small-pox	...	...	...	·2	·2
Fever	...	...	...	12·8	13·4
Bowel-complaints	...	...	...	5·2	5·0
Injury	...	...	...	·5	·4
Other causes	...	...	...	9·1	7·9

indicating chiefly that there was a noticeable decrease in the death-rate from cholera with an increase in that from the maladies classed under the head of "Other causes."

4. That while only one town (Poori, mortality 10·5 per 1,000 of population) exhibited fatal results from small-pox, and that to a noticeable extent, and injury shewed no conspicuous fatality anywhere, the under-mentioned Municipalities returned the highest death-rates from cholera, fever, bowel-complaints, and "Other causes":—

<i>Cholera.</i>		<i>Fever.</i>		<i>Bowel-complaints.</i>		<i>Other causes.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.		Ratio per mille.
Narainganj	29·0	Jessore	61·2	Serampore	27·5	Poori	25·2
Serampore	7·8	Purneah	38·1	Hughli and Chin-surah	19·7	Ranaghat	23·9
Dacca	7·8	Poori	37·7	Comillah	15·4	Narainganj	20·7
Hughli and Chin-surah	6·6	Hughli and Chin-surah	31·1	Poori	12·6	Comillah	19·2
Howrah	2·9	Burdwan	30·5			Serampore	15·7
		Rampore Beaulah	26·3			Bhagulpore	15·4
		Darjiling	22·2			Monghyr	14·4
		Chittagong	21·1			Midnapore	12·4
						Gya	12·3
						Hughli and Chin-surah	11·6
						Durbhanga	10·2
						Chupra	10·1

5. That the mortality according to Sex, Class and Age stood as shown below:—

<i>According to Sex.</i>		<i>According to Class.</i>		<i>According to Age.</i>	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	32·7	Christians	7·5	Under 1 year	204·9
Females	27·5	Hindus	30·9	1 and under 5 years	32·5
Ratio of male deaths to every 100 female deaths	128	Mahomedans	29·1	5 " 10 "	17·9
				10 " 15 "	11·9
				15 " 20 "	11·6
				20 " 30 "	17·7
				30 " 40 "	22·3
				40 " 50 "	25·7
				50 " 60 "	40·3
				60 years and upwards	87·8

The 6th January 1890.

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending 21st December 1889.

		1	2	3	4	5	6	7	8	9	10	11	12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		POPULATION.						BIRTHS.						MORTALITY ACCORDING TO—																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
DISTRICTS.	NAMES OF MUNICIPALITIES.	NUMBER OF—		RATIO PER 1,000 OF POPULATION PER ANNUM.		DEATHS FROM—						DISEASE.						SEX.		RATIO OF MALE DEATHS TO EVERY 100 FEMALE DEATHS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Males.	Females.	Total.	Males.	Females.	Total.	Cholera.	Small-pox.	Typhoid.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Typhoid.	Injury.	Other diseases.	All causes.		Ratio of deaths per 1,000 of population per annum in the previous week.	DEATHS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Burdwan	Burdwan	15,063	16,017	31,080	5	8	13	76	122	198	62

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 6th January 1890.

W. H. GREGG, *Dip. Publ. Health, Camb.,*
Sanitary Commissioner for Bengal.

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 4th January 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 4TH JANUARY 1890.			WEEK ENDING SATURDAY, THE 5TH JANUARY 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	2,090	2,70,433	4,613	1,670	2,91,865	5,181
Jute ...	268	2,49,550	2,914	143	74,025	1,335
Firewood ...	102	61,795	763	151	79,020	1,173
Other articles ...	977	2,32,255	3,673	1,353	2,71,610	4,004
Total ...	3,437	8,04,033	21,963	3,317	7,17,120	11,963

Weekly Return of Traffic Receipts on Indian Railways.

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTIONS.)

Approximate Return of Traffic for week ended 21st December 1889, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILE RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	137,060	73,000 0 0	6,25,350 0	1,74,300 0 0	14,730 0 0	2,62,090 0 0	21,680	35,300	56,980
Or per mile of railway ...	183	99 0 0	837 0	233 0 0	13 0 0	335 0 0	.....	.....	.....
For previous 24 weeks of half-year ...	*5,466,348	15,82,803 0 0	*1,53,21,426 0	38,72,874 0 0	4,17,567 0 0	*58,73,244 0 0	531,086	710,791	1,241,877
Total for 25 weeks ...	5,503,408	16,56,463 0 0	1,59,46,766 0	40,47,174 0 0	4,32,297 0 0	61,55,934 0 0	552,766	746,091	1,298,857
COMPARISON.									
Total for corresponding week of previous year ...	121,027	63,751 0 0	6,08,963 0	1,74,741 0 0	17,248 0 0	2,55,740 0 0	21,374	33,678	55,052
Per mile of railway corresponding period of previous year ...	160	95 0 0	905 0	260 0 0	14 0 0	339 0 0	.....	.....	.....
Total to corresponding date of previous year ...	3,404,474	15,42,237 0 0	1,53,72,275 0	39,63,990 0 0	4,20,977 0 0	59,27,174 0 0	518,292	767,547	1,285,839

* Audited up to week ending 9th November 1889.

† Excluding steamer earnings.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
673	Rs. 2,55,740	Rs. 380	747	Rs. 2,62,690	Rs. 353	673	Rs. 78,82,646	Rs. 287	722	Rs. *82,71,375	Rs. 302	Rs. 3,88,729	Rs.

* Audited up to week ending 9th November 1889.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for week ended 21st December 1889, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	25,000	11,160 0 0	30,470 0	2,600 0 0	110 0 0	13,870 0 0	5,606	2,000	5,672
Or per mile of railway ...	200	89 0 0	244 0	21 0 0	1 0 0	111 0 0	.....	.....	.....
For previous 24 weeks of half-year ...	*604,817	2,32,622 0 0	*13,52,092 0	1,22,151 0 0	5,362 0 0	*3,60,135 0 0	86,087	54,372	140,459
Total for 25 weeks ...	629,877	2,43,782 0 0	13,82,562 0	1,24,751 0 0	5,472 0 0	3,74,065 0 0	89,693	56,438	146,131
COMPARISON.									
Total for corresponding week of previous year ...	23,974	9,628 0 0	42,206 0	2,570 0 0	62 0 0	12,530 0 0	3,606	2,066	5,672
Per mile of railway corresponding period of previous year ...	192	78 0 0	338 0	21 0 0	.....	99 0 0	.....	.....	.....
Total to corresponding date of previous year ...	666,203	2,22,532 0 0	14,43,211 0	1,40,695 0 0	1,908 0 0	3,65,185 0 0	90,318	61,781	152,099

* Audited up to week ending 9th November 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1889.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 22ND DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	12,530	99	125	13,870	111	125	5,26,087	111	125	*5,63,853	117	26,866	.....

* Audited up to week ending 9th November 1889.

DACCRA STATE RAILWAY.

Approximate Return of Traffic for week ended 21st December 1889, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	14,190	5,570 0 0	47,620 0	4,610 0 0	360 0 0	10,540 0 0	2,547	2,251	4,798
Or per mile of railway ...	165	65 0 0	554 0	54 0 0	4 0 0	123 0 0	.....	.....	.....
For previous 24 weeks of half-year ...	*271,229	1,21,065 0 0	*6,92,670 0	58,937 0 0	5,436 0 0	*1,85,338 0 0	60,125	20,157	80,282
Total for 25 weeks ...	385,483	1,26,635 0 0	7,39,690 0	65,447 0 0	5,796 0 0	1,95,878 0 0	62,670	22,418	85,088
COMPARISON.									
Total for corresponding week of previous year ...	14,860	4,996 0 0	15,861 0	1,784 0 0	180 0 0	6,960 0 0	2,510	294	2,804
Per mile of railway corresponding period of previous year ...	173	58 0 0	184 0	21 0 0	2 0 0	81 0 0	.....	.....	.....
Total to corresponding date of previous year ...	355,125	1,12,792 0 0	5,77,613 0	20,731 0 0	4,733 0 0	1,48,256 0 0	62,704	16,338	79,042

* Audited up to week ending 11th November 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1889.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 22ND DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	6,960	81	86	10,540	123	86	2,13,247	65	86	*2,71,045	83	57,798	.....

* Audited up to week ending 9th November 1889.

NALHATI STATE RAILWAY.

Approximate Return of Traffic for the week ending 21st December 1889, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	3,048	1,065 0 0	20,200 0	996 0 0	18 0 0	2,079 0 0	509	254	763
Or per mile of railway ...	112	39 0 0	741 0	36 0 0	1 0 0	76 0 0	.....	.....	.....
For previous 23 weeks of half-year ...	76,161	27,375 0 0	2,16,088 0	15,953 0 0	1,597 0 0	42,875 0 0	12,143	9,892	22,035
Total for 24 weeks ...	79,209	28,440 0 0	2,36,288 0	16,949 0 0	1,605 0 0	44,954 0 0	12,652	10,146	22,798
COMPARISON.									
Total for corresponding week of previous year ...	2,770	1,106 0 0	15,296 0	842 0 0	6 0 0	1,954 0 0	509	472	981
Per mile of railway corresponding week of previous year ...	102	41 0 0	561 0	31 0 0	.....	72 0 0	.....	.....	.....
Total to corresponding date of previous year ...	75,709	27,086 0 0	2,91,339 0	17,145 0 0	2,086 0 0	46,317 0 0	12,725	10,970	22,795

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	1,954	72	27½	2,079	76	27½	72,745	72	27½	70,773	70	.....	1,972

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for the week ending 21st December 1889, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	39,085	17,198 0 0	1,90,906 0	20,928 0 0	4,998 0 0	43,124 0 0	6,373	5,529	11,902
Or per mile of railway ...	145	63 0 0	699 0	77 0 0	3 0 0	143 0 0*	.....	.....	.....
For previous 23 weeks of half-year ...	902,988	3,32,030 0 0	40,58,067 0	4,07,534 0 0	90,631 0 0	8,50,195 0 0	127,074	128,882	256,536
Total for 24 weeks ...	1,002,073	3,69,228 0 0	42,48,073 0	4,28,462 0 0	95,629 0 0	8,93,319 0 0	134,047	134,411	268,458
COMPARISON.									
Total for corresponding week of previous year ...	36,121	16,446 0 0	1,30,916 0	14,972 0 0	3,604 0 0	35,022 0 0	5,299	5,391	10,690
Per mile of railway corresponding week of previous year ...	132	60 0 0	480 0	55 0 0	1 0 0	116 0 0*	.....	.....	.....
Total to corresponding date of previous year ...	968,728	3,36,568 0 0	32,69,767 0	2,94,075 0 0	75,862 0 0	7,06,905 0 0	129,783	127,760	257,543

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR WEEK ENDING 22ND DECEMBER 1888.			RECEIPTS FOR WEEK ENDING 21ST DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 22ND DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 21ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	35,022	128	273	43,124	158	263'37	12,04,145	124	273	14,17,078	140	2,13,533	.....

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.						Rs.
Approximate earnings for week ending 14th December 1889	...	...	...	...	...	8,195
Corresponding week last year	...	...	...	...	...	12,291
Decrease	...	...	...	...	...	4,096
Receipts from 1st July to 14th December 1889	...	...	...	...	...	2,62,051
From 1st July to 15th December 1888	...	...	...	...	...	2,85,932
Decrease	...	...	...	...	...	23,881
Compared with 1887, there is an increase of Rs. 23,142 for the corresponding period.						
Miles open week ending 14th December 1889	...	...	...	...	...	Miles. 51
Corresponding week last year	...	...	...	...	...	51
Receipts per mile open week ending 14th December 1889	...	...	...	...	...	Rs. A. P. 160 11 0
Corresponding week last year	...	...	...	...	...	241 0 0
Decrease	...	...	...	...	...	80 5 0



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JANUARY 15, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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ROUTE TO BE TAKEN BY EMIGRANTS DESPATCHED DIRECT FROM THE RECRUITING DISTRICTS TO DHUBRI.

GENERAL DEPARTMENT—INLAND EMIGRATION.

Calcutta, the 11th January, 1890.

RESOLUTION.

READ—

A letter No. 1641, dated the 19th December 1889, from the Superintendent of Emigration, Calcutta, and previous correspondence regarding the medical inspection of coolie emigrants to Assam at Naihati.

By the notification, dated the 16th September, 1889, which was published at page 782 of Part I of the *Calcutta Gazette* of the 18th idem, the Lieutenant-Governor, in exercise of the power vested in him by section 3 of Act I of 1889, declared by an amendment of Rule 6 of the rules under that Act that the Hooghly-Naihati route should be adopted for emigrants to Assam. This order was intended to apply only to the emigrants taken from the recruiting districts to Dhubri and crossing the Hooghly above Calcutta, who, in fact, constitute the majority, the object being to exclude the alternative crossings *via* Mugra and Kanchrapara. It was not intended to interfere in any way with emigration *via* Calcutta and Goalundo. As the rule has been differently interpreted, this explanation is published for general information.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,
Secretary to the Govt. of Bengal.

WORKS OF PUBLIC UTILITY CONSTRUCTED IN 1888.

GOVERNMENT OF BENGAL—PUBLIC WORKS DEPARTMENT.

Miscellaneous Public Improvements.

No. 2739—1M.P.I., dated Calcutta, the 30th December 1889.

READ—

Statement of works of public utility constructed by private individuals in the several districts of Bengal during the year 1888.

Read again—

Statement of similar works constructed during 1887, and the Resolution thereon.

REMARKS.—The following works of public utility were constructed by private individuals during 1888 :—

	Number of works.	Cost.				Number of works.	Cost.		
		Rs.	A.	P.			Rs.	A.	P.
Public buildings	9	58,050	0	0	Ghâts	4	4,550	0	0
Roads	4	1,450	0	0	Tanks	282	2,09,193	14	6
Bridges	11	12,658	10	6	Wells	106	30,336	0	0
Embankments or bunds	8	2,578	0	0	Miscellaneous	39	1,681	0	0
					Petty works	...	74,749	8	0

2. The following statement shows the number of works costing more than Rs. 200 each, which were constructed during the past year, and the amounts contributed, including donations for petty works, as compared with the figures for the two previous years :—

Year.	Number of works costing between Rs. 200 and Rs. 500 each.	Number of works costing more than Rs. 500 each.	Total number of works costing Rs. 200 and upwards each.	Total expenditure on works costing Rs. 200 and upwards each.	Add cost of petty works under Rs. 200.	Total contribution.
1886	331	122	563	Rs. A. P. 2,63,823 10 0	Rs. A. P. 60,492 9 6	Rs. A. P. 3,25,323 3 2
1887	312	98	410	2,05,698 2 3	50,502 1 0	2,56,530 3 2
1888	331	132	463	3,20,492 9 9	74,749 8 0	3,95,242 1 0

3. The subjoined table exhibits the number of works costing Rs. 200 and over each, constructed in the several districts, and the amounts contributed for their construction :—

Name of district.	Number of works.	Total cost.	Name of district.	Number of works.	Total cost.
		Rs. A. P.			Rs. A. P.
Burdwan	6	7,700 0 0	Noakhally	1	1,000 0 0
Bankoora	4	3,600 0 0	Chittagong	3	2,206 0 0
Beerbhoom	...	...	Chittagong Hill Tracts	...	...
Midnapore	9	3,525 0 0	Patna	3	25,200 0 0
Hooghly	3	4,400 0 0	Gya	14	4,038 0 0
Howrah	3	3,200 0 0	Shahabad	16	4,045 0 0
24-Pergunnahs	9	49,513 10 6	Darbhanga	38	34,135 0 0
Khoolna	20	7,175 0 0	Mozufferpore	18	12,551 0 0
Nuddea	13	3,830 0 0	Sarun	13	4,900 0 0
Jessore	24	11,675 0 0	Chumparun	25	6,775 0 0
Moorshedabad	3	8,824 14 6	Monghyr	35	9,400 0 0
Dinapore	13	5,400 0 0	Bhagulpore	21	13,925 0 0
Rajshahye	18	14,291 0 0	Purneah	5	2,275 0 0
Rungpore	10	5,525 0 0	Maldah	3	7,200 0 0
Bogra	8	7,225 0 0	Sonthal Pergunnahs	40	2,760 0 0
Pubna	6	13,950 0 0	Cuttack	1	600 0 0
Darjeeling	...	...	Balasore	11	5,145 0 0
Julpigoree	7	2,275 0 0	Pooree	3	1,420 0 0
Dacca	2	800 0 0	Hazaribagh	1	200 0 0
Furzedpore	13	9,700 0 0	Lehardugga	...	...
Backergunge	5	2,100 0 0	Manbhoom	3	1,200 0 0
Mymensingh	21	13,818 0 0	Singbhoom	4	940 0 0
Tipperah	8	2,050 0 0			

4. Taking them according to the classification adopted in paragraph 1, the following works are specially noted :—

Public buildings.—Of the sum of Rs. 58,050 contributed under this head, the Marwari community of Ranigunj contributed Rs. 4,500 for the construction of a serai for travellers in Mahalla Hatipore, in the town of Ranigunj;

Dr. Kalipodo Gupta, F.R.C.S., contributed Rs. 2,750 for a charitable dispensary, and Baboo Ram Gopal Rakhit Rs. 40,000 for a similar work at Khutura; Rai Bahadoor Boodhoosingh Dodhooia and Rai Bahadoor Bishen Chand Dodhooia gave Rs. 6,000 for an alms-house at Azimgunge; and Baboo Sarat Chandra Rai Chowdhury contributed Rs. 2,500 for a school building at Singhya.

Roads.—The contributions for roads were very meagre, the total amounting only to Rs. 1,450.

Bridges.—The sum of Rs. 12,653-10-6 contributed for bridges includes Rs. 1,803-10-6 paid by Baboo Kali Nath Banerjee for a masonry bridge over the Dhulchita khali; Rs. 2,500 contributed by Alladi Bibi for a bridge on the river Harihar; Rs. 1,000 given by Baboo Bhichhuk Nath Pande for a masonry bridge at Baigam; and Rs. 4,000 by Baboo Sarat Chandra Rai Chowdhury for a masonry bridge at Mobarakpore.

Embankments or Bunds.—Rs. 2,578 were paid under this head: there were no contributions of large amount.

Ghâts.—Of the sum of Rs. 4,550 contributed, Baboo Kristo Chunder Banerjee gave Rs. 1,300, and Dr. Kalipodo Gupta, F.R.C.S., Rs. 2,250.

Tanks.—Rs. 2,09,193-14-6 were spent in constructing and re-excavating 282 tanks. Baboo Ram Chand Shai of Khudkuri, thana Khandghose, contributed Rs. 1,250; Giridhari Das Mohanta Rs. 1,600; Baboo Dino Nath Ray Rs. 1,200; Baboo Kenaram Pall of Dhitpore Rs. 1,000; Madhab Chandra Giri Mohanta of Tarakespur Rs. 3,000; Baboo Rajchander Kolay of Bar-bamoongar, zemindar of the village in Amta, Rs. 2,000; Baboo Premchand Singh of Mooraribar in Bagnan Rs. 1,000; the Nawab Bahadoor of Moorshe-dabad Rs. 2,624-14-6; Kumar Jogendro Nath Roy Rs. 3,000; Baboo Rokha Kar Moitra Rs. 1,000; Baboo Madhub Mondal Rs. 1,000; Mr. Lang for Robert Watson & Co. Rs. 2,000; Baboo Pamos Pramanick Rs. 1,000; Baboo Niwamat Patwari Rs. 1,200; Baboo Govinda Chandra Shaha Rs. 1,200; Baboo Boraula Pramanik Rs. 1,000; Baboo Radha Mohun Chowdhuree Rs. 1,000; Baboo Raj Mohun Shaha Rs. 2,500; Baboo Lukhi Kanta Pramanik Rs. 10,000; Baboo Mohur Molla Rs. 1,000; Maharajah Sir Jotendra Mohan Tagore, K.C.S.I., Rs. 2,000; Syjuddin Ahmed Rs. 2,000; Baboo Rajoni Kantha Ghatak Rs. 1,000; Bisvasvari Devi Chowdhurani Rs. 4,500; Baboo Petamber Shaha Rs. 1,000; Baboo Susthi Charan Mazumdar Rs. 1,200; Moulvie Ali Ahmad for Bibi Sogra, widow of Moulvie Abdul Aziz, Rs. 25,000; Mohunt Narsing Doss Rs. 2,000; Chandi Baboo Rs. 2,000; Shaik Isuf Rs. 1,000; Baboo Digamber Sing Rs. 1,000; Baboo Jalim Monder Rs. 1,000; Baboo Panup Lal Sahu Rs. 1,000; Baboo Deonath Jha Rs. 1,000; Baboo Dooga Chowdhury Rs. 1,000; Baboo Mongal Gowala Rs. 1,500; Baboo Bacha Thakur Rs. 1,800; Baboo Gunga Pershad Rs. 1,000; Baboo Ranga Jha Rs. 1,035; Dodhrain Ojhain Rs. 1,000; Baboo Jungli Jha Rs. 1,500; Baboo Kanaia Pandey Rs. 2,500; Baboo Sohar Barar 1,001; Baboo Ram Charan Raut Rs. 1,000; Baboo Mahadeb Raut Rs. 1,000; Baboo Nathu Sahu Teli Rs. 1,000; Baboo Imrit Shah Rs. 2,000; Baboo Fajdar Sing Rs. 1,000; Baboo Krishna Dhan Das Rs. 1,000; Mussamat Kapurbati Kussari Rs. 1,300; and Baboo Apatti Dibba of Kapasirta, pergunnah Mongla in Kanthi, Rs. 1,070.

Wells.—Under this head Rs. 30,336 were contributed, of which Baboo Gobinda Chandra Roy gave Rs. 1,000; Shaikh Faiz Ally Rs. 1,000; and Baboo Nandu Lal Rs. 2,000.

Miscellaneous.—The sum of Rs. 1,681 shown against this head is composed of small amounts.

RESOLUTION.—The Lieutenant-Governor notices with pleasure that the contributions for works of public utility during the year under review compare favourably with those of the previous two years. His Honour hopes to see further progress in the same direction, and he trusts that those who are willing to contribute money for this purpose will exercise a careful judgment in selecting such works as are calculated to enhance the material prosperity of the community. The Lieutenant-Governor desires to thank those who have contributed in the past year for their public spirit and liberality.

Letters of acknowledgment will be forwarded by the Government to those who have constructed important works. Those who have constructed works

costing Rs. 500 and under will, as usual, receive an acknowledgment from the Commissioner or the Magistrate of the Division.

ORDER.—Ordered that a copy of this Resolution, and of the statement, be forwarded to the Board of Revenue, Lower Provinces, and to all Commissioners of Divisions; to the Commissioner of Chota Nagpore, and to all Superintending Engineers of Public Works Circles in Bengal, for information.

Ordered also, that a copy of this Resolution, and of the statement, be forwarded to the Revenue and Judicial Departments of this Government for information.

Ordered also, that this Resolution and the statement be published in the Supplement to the *Calcutta Gazette* for general information.

By order of the Lieutenant-Governor of Bengal,

E. J. MARTIN,

Secretary to the Government of Bengal,

P. W. Dept.

Statement of works of public utility constructed by private individuals during the year 1888.

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of districts.	Grand Total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
BURDWAN	Burdwan	Baboo Siva Das, Muhuri of Kona, thana Cutwa.	Repairs to a road ..	Kona, thana Cutwa ..	400 0 0		
		Baboo Ram Chand Shai of Khudkuri, thana Khandzhoze.	Re-excavation of a tank ..	Khudkuri, thana Khandzhoze.	1,250 0 0		
		Jahiruddin Sheikh, of Chukdighi, thana Jamalpur.	Excavation of a tank ..	Chukdighi, thana Jamalpur.	900 0 0		
		Baboo Nossorishore Mandal, of Palashan, thana Satgachia.	Ditto ..	Palashan, thana Satgachia ..	250 0 0		
		Baboo Gopal Chandra Ghose, of Beerpoor, thana Burdwan.	Ditto ..	Beerpoor, thana Burdwan ..	400 0 0		
		Marwari community of Raniganj, thana Raniganj.	Construction of a serai for travellers.	Mahalla Hatipore, in the town of Raniganj, thana Raniganj.	4,500 0 0		
		Works costing less than Rs. 200 each ..			140 0 0	7,840 0 0	
	Bankoorah	Giridhari Das Mohanta ..	A tank ..	On the road between Indas and Katalpore police-stations.	1,000 0 0		
		Baboo Gora Chand Banerjee ..	Do. ..	Sonamukhi ..	500 0 0		
		.. Dink Nath Ray ..	Do. ..	Teleshaer ..	1,200 0 0		
	Beerbhoom	.. Gunga Narain Duari ..	Do. ..	Kusadip ..	300 0 0	3,000 0 0	
		Nil ..					
	Midnapore	Sreemati Syama Sundary Debya, of Shamchandpore.	A well ..	Shamchandpore, outpost Sirsa ..	200 0 0		
		Baboo Kenaram Pall, of Dhutpore ..	Re-excavation of a tank ..	Benapura, outpost Benapura ..	1,000 0 0		
		Baboo Dwerka Nath Chowdhury, of Arasini.	Ditto ..	Arasini, outpost Benapura ..	400 0 0		
		Baboo Bodya Nath Jana, of Kutanala bazar.	Ditto ..	Dhondighi, police-station ..	200 0 0		
		Baboo Lakhan Pandah, of Bhiribadga.	A tank ..	Aklamasore, police-station ..	200 0 0		
		Baboo Umesh Chandra Roy, Doctor of Pekalis.	Re-excavation of a tank ..	Rasdaha, in the municipality of Chandrakona.	800 0 0		
		Sheik Meher, of Misara ..	A tank ..	Misara, police-station Panskura.	200 0 0		
	Hooghly	Baboo Madhu Sudan Panigrahi, of Panskura.	Do. ..	Panskura, police-station ..	300 0 0		
		Baboo Judhishter Saw of Bhoturia ..	Do. ..	Bhoturia, police-station ..	225 0 0		
		Works costing less than Rs. 200 each ..			600 0 0	4,125 0 0	
		Baboo Peary Lall Chatterjee, of Talbana, in Chhonikhalia thana.	A tank ..	Talbana ..	700 0 0		
		Madhab Chandra Giri, Mohanta of Tarakespur.	Do. ..	Tarakespur ..	3,000 0 0		
		Baboo Gopal Chandra Benia, of Bansberia.	Constructing a masonry ghāt on the river Hooghly.	Bansberia ..	700 0 0	4,400 0 0	
		Ranee Durga Sundari of Andool ..	A thatched school-house (a).	Near Rajbati in Andool, Sankrail.	200 0 0		
	Howrah	Baboo Rajchander Kolay, of Barbamoonar, zemindar of the village in Amta.	A tank ..	Barbamoonar in Amta ..	2,000 0 0		
		Baboo Prechhand Singh, of Mooraribar in Bagan.	Do. ..	On the side of the public road in village Mooraribar.	1,000 0 0	3,200 0 0	
				TOTAL OF BURDWAN DIVISION ..			23,165 0 0
PURNIMA	24-Purnima	Kangali Mundal ..	Tank ..	Mullikapore ..	350 0 0		
		Ditto ..	Masonry masjid ..	Ditto ..	400 0 0		
		Kristo Chunder Banerjee ..	Masonry ghāt on the river side.	Halishahar, Kalikatalla bazar ..	1,500 0 0		
		Dr. Kalipodo Gupta, F.R.C.S. ..	Ditto ditto ..	Halishahar, Boonaghat ..	2,250 0 0		
		Ditto ..	Charitable dispensary.	Halishahar, Boonaghat ..	2,750 0 0		
		Ram Gopal Rakhit ..	Ditto ditto ..	Khutera ..	40,000 0 0		
		Kali Nath Banerjee ..	Masonry bridge over the Dhulehita khal.	Mundirghata, Dhulehita ..	1,803 10 6		
	Khoolna	Mohendra Nath Patra of Belpukur, police-station Kulpi.	New tank and re-excavation of an old tank.	Sangore melah ground ..	600 0 0		
		Works costing less than Rs. 200 each ..			125 0 0	40,638 10 6	
		Kasem Mundal ..	Tank ..	Judpur ..	200 0 0		
		Barada Kanta Sircar ..	Do. ..	Kumira ..	200 0 0		
		Mathura Nath Chatterjee ..	Do. ..	Raipara ..	250 0 0		
		Digambar Dutta ..	Do. ..	Gopalpore ..	300 0 0		
		Ananda Chandra Ghosh ..	Do. ..	Shamapore ..	500 0 0		
	Nuddes	Ram Taran Ghosh ..	Do. ..	Haridhaly ..	300 0 0		
		Shampati Churn Dass ..	Do. ..	Gopalpore ..	250 0 0		
		Amar Chand Ghosh ..	Do. ..	Shollen ..	500 0 0		
		Porehulla Sheikh ..	Road ..	Kathuly ..	200 0 0		
		Nibaran Chandra Basu ..	Tank ..	Monbhog ..	500 0 0		
		Poreh Nath Chatterjee ..	Do. ..	Baromonbhog ..	550 0 0		
		Mohin Chandra Banerjee ..	Do. ..	Bahudia ..	470 0 0		
		Bhola Nath Ghosh ..	Do. ..	Sadenchia ..	300 0 0		
		Shodanally Shaha ..	Do. ..	Satinigraam ..	205 0 0		
		Sobhani Karigar ..	Do. ..	Ditto ..	350 0 0		
		Gobardhan Mundal ..	Do. ..	Gopinathpur ..	250 0 0		
		Kala Chand Karigar ..	Do. ..	Tadra ..	350 0 0		
		Karmatullah Sheikh ..	Do. ..	Lapsa ..	700 0 0		
		Bidhu Bhusan Bhanja ..	Do. ..	Nalta ..	600 0 0		
		Rai Churn Karmakar ..	Do. ..	Do. ..	275 0 0	7,450 0 0	
		Works costing less than Rs. 200 each ..					
		Bhadu Mundal ..	Tank ..	Narapalipara ..	325 0 0		
		Durga Churn Sen ..	Do. ..	Kristapora ..	300 0 0		
		Shya Ram Biswas ..	Do. ..	Bojpara ..	200 0 0		
		Srinanto Ghosh ..	Do. ..	Ghotwagatchi ..	200 0 0		
		Sarayan Mundal ..	Re-excavation of a tank ..	Satra ..	200 0 0		
		Milmony Mundal ..	Ditto ..	Kumarpoor ..	500 0 0		
		Kanye Mundal ..	Ditto ..	Kashimpur ..	700 0 0		
		Umesh Mundal ..	Ditto ..	Gushica ..	400 0 0		
		Hem Chand Mundal ..	Ditto ..	Sarmanypoor ..	500 0 0		
		Rashik Lall Pal and Huri Dass Pal ..	Ditto ..	Goshpura ..	400 0 0		
		Villager of Nable ..	Ditto ..	Nable ..	300 0 0		
		Rameswar Karmakar ..	Tank ..	Sholataka ..	250 0 0		
		Madhub Chandra Karmakar ..	Do. ..	Do. ..	225 0 0	4,027 0 0	
		Works costing less than Rs. 200 each ..			107 0 0		

(a). This is a free school. The sum of Rs. 325, including the pay of teachers, &c., is the monthly expenditure which is also paid by the Rane.

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of districts.	Grand Total of Division.	
					Rs. A. P.	Rs. A. P.	Rs. A. P.	
PRESIDENCY—contd.	Jessore	Gopal Chandra Pal	Tank	Gaidrahi	300 0 0			
		Khetra Mohun Mitra	Do.	Ditto	400 0 0			
		Moti Lal Kundu	Do.	Rupdia	400 0 0			
		Khoda Baksa Hasandar	Do.	Moorari	400 0 0			
		Wahed Coohman	Do.	Harbilla	500 0 0			
		Monai Sirdar	Do.	Chanlia	300 0 0			
		Kushai Mulla	Do.	Narendrapore	300 0 0			
		Bhalai Dai	Do.	Manshapore	350 0 0			
		Manulab Biswas	Do.	Mitra Singa	400 0 0			
		Kartik Dass	Do.	Badalanga	400 0 0			
		Miru Biswas	Do.	Sing Jalli	500 0 0			
		Sakul Mondal	Do.	Ranlia	300 0 0			
		Gagan Mistri	Do.	Ganipar	200 0 0			
		Cherakal Sheikh	Do.	Rhoikara	600 0 0			
		Badal Mondal	Do.	Shomaspur	700 0 0			
		Thakamoni Dasya	Do.	Mohakul	600 0 0			
		Alladi Bibi	Bridge	On the river Haribar	2,300 0 0			
		Jogendra Nath Dass	Tank	Dighal Kandi	500 0 0			
		Chundra Nath Sirkar	Do.	Kurigram	500 0 0			
		Kodai Mina	Do.	Dumartollah	400 0 0			
	Kodai Sheikh	Do.	Ditto	300 0 0				
	Jharu Sirdar	Do.	Malidanga	300 0 0				
	Madhu Sheikh	Do.	Singa	250 0 0				
	Peary Mohun Mozumdar	Do.	Lohagara	275 0 0				
	Works costing less than Rs. 200 each				105 0 0			
	Moorshedabad	Nawab Bahadur of Moorshedabad	Tank	Jahazmali Gurha	2,624 14 6			
		Roy Bahadur Boodhosingh	Do.	Powli	200 0 0			
	Moorshedabad	Roy Bahadur Fishen Chand	Dharmasallah	Azimgunge	6,000 0 0			
		dhoria.						
	TOTAL OF PRESIDENCY DIVISION						8,834 14 6	81,780 0 0
	Dinagore	Mohadeo Das	Tank	Hashanpore	700 0 0			
		Ashkar Mondal	Do.	Chuk	600 0 0			
		Peari Mohun Nandi	Do.	Marnal	600 0 0			
		Raja Mondal	Do.	Gool	500 0 0			
		Ram Chandra Shaha	Do.	Shapahar	500 0 0			
		Shookaru Bania	Do.	Hinnakuri	400 0 0			
		Gangadhar Kosya	Do.	Shalik	425 0 0			
		Hanka Hazi	Do.	Ditto	375 0 0			
		Chaitan Shaha	Do.	Bashudebpore	300 0 0			
		Perash Molla	Do.	Mohaspore	300 0 0			
Rajshahye	Koodi Punchayet	Do.	Katta	200 0 0				
	Choti Fakir	Do.	Bashudebpore	275 0 0				
	Naloo Noshya	Do.	Bhangapara	225 0 0				
	Works costing less than Rs. 200 each			1,085 0 0				
	Khudi Mondal	Tank	Jhinapara	400 0 0				
	Alchajan Molla	Do.	Jumapara	400 0 0				
	Medhu Mondal	Do.	Motihar	200 0 0				
	Shital Molla	Do.	Daul	400 0 0				
	Shonai Pramanick	Do.	Ahya Gotopore	700 0 0				
	Rumar Jogendra Nath Roy	Do.	Bonarypara	3,000 0 0				
Rajshahye	Rokha Kor Maitra	Do.	Nepaldighi	1,000 0 0				
	Durga Nath Karmakar	Do.	Abdulpore	800 0 0				
	Khadu Shelan	Do.	Kushumba	402 0 0				
	Bholai Mondal	Do.	Ditto	729 0 0				
	Kins Palk	Do.	Bhabra	220 0 0				
	Arsj Fakir	Do.	Shemba	500 0 0				
	Mokim Shaha	Do.	Par Jungy	700 0 0				
	Madhub Mondal	Do.	Shadypore	1,000 0 0				
	Mr. Lang, for Robert Watson & Co.	Do.	Bilmara	2,000 0 0				
	Pamos Pramanick	Do.	Toen Shan	1,000 0 0				
Rajshahye	Kater Mondul	Do.	Jamira	375 0 0				
	Ashak Mouinavi	Do.	Ditto	375 0 0				
	Works costing less than Rs. 200 each			550 0 0				
	Newaj Mohamed Gobdar	A masonry bridge	Sheroobhanga village, police-station Mithapukur.	850 0 0				
	Niwamut Patwari	Tank	Borobee village, police-station Nesbutgunge.	1,200 0 0				
	Tatia Ram Das Patwari	Do.	Khalisamadati village, police-station Kaliagunge.	505 0 0				
	Jarip Mohamed	Do.	Dharmabaree village, police-station Ulipore.	600 0 0				
	Dharia Dawai	Do.	Shibbaree village, police-station Ulipore.	570 0 0				
	Hisabdi Neahyo	Do.	Falgacha village, police-station Sundargunge.	300 0 0				
	Rahmanissa Bibi	Road	From Paela village to Lalchamar Bunder.	450 0 0				
Rangpore	Ram Ratan Sirkar	A masonry well	Dhappadanga village	400 0 0				
	Jannai Bullava Sen	Ditto	Boro Bhita village, police-station Jaldhaka.	300 0 0				
	Newaj Mahamed	Tank	Jhenia village, police-station Sundergunge.	350 0 0				
	Jancolla Shonar	Tank	Atapara, police-station Bogra	375 0 0				
	Meherulla	Do.	Kamargari, police-station Bogra.	600 0 0				
	Govinda Chandra Shaha	Do.	Natidali, police-station Bogra	1,200 0 0				
	Bornulla Pramanik	Do.	Dharai, police-station Shibgunge.	1,000 0 0				
	Taj Pramanik	Do.	Lekhipore, police-station Shibgunge.	350 0 0				
	Dhabaree Pramanik	Do.	Banatighar, police-station Shibgunge.	200 0 0				
	Radha Mohun Chowdhuree	Do.	Tilakpore, police-station Adamdighi.	1,000 0 0				
Bogra	Raj Mohun Shaha	Do.	Govindpore, police-station Adamdighi.	2,300 0 0				
	Lushi Kanta Pramanik	Tank	Pubna town	10,000 0 0				
	Anukul Chandra Kundu	Do.	Govindpore, thana Dulai	950 0 0				
	Dharnidhar Shaha	Do.	Ullapara, thana Shazadpore	900 0 0				
	Rabini Chandra Pramanik	Do.	Chorimure, thana Ullapara	500 0 0				
	Janamali Roy, zemindar	Do.	Banshbaree, thana Roygunge	600 0 0				
	Mohur Molla	Do.	Talam, thana Roygunge	1,000 0 0				
							7,225 0 0	
	Darjeeling	Nil				13,050 0 0		

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of district.	Grand Total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
RAJSHAHYE— conold.	Jalpigoree	His Highness the Maharajah of Cooch Behar.	Three pipe wells	Ranigunge	816 0 0		
		Ditto ditto	Improvements to dispensary buildings.	Boda and Debigunge	221 0 0		
		Ditto ditto	Tank	Boda	438 0 0		
		Ditto ditto	Temple	Boda	800 0 0		
		Works costing less than Rs. 200 each			567 0 0	2,842 0 0	
				TOTAL OF RAJSHAHYE DIVISION			50,698 0 0
Dacca		Mossamut Rosoni, wife of Rasan Bepari, of Rasan Bag.	A masonry ghât	Naraingunge on the east side of the municipal tank.	300 0 0		
		Baboo Okhoy Chandra Shome	Tank	Krishnapura, in thana Naraingunge.	500 0 0		
		Works costing less than Rs. 200 each			152 0 0	952 0 0	
Furreedpore		Giris Chandra Sarkar	Tank	Godardhardangi, thana Furreedpore.	400 0 0		
		Maharajah Sir Jotendra Mohan Tagore, K.C.S.I.	Do.	Muraidaha, thana Furreedpore.	2,000 0 0		
		Gobinda Biswas	Do.	Eranda, outpost Hamdampore.	(a) 600 0 0		
		Jadav Chandra Ghose	Do.	Dhupri, thana Pangsang	500 0 0		
		Naba Krishna Kachara	Do.	Dudkhali, outpost Habi-gunge.	350 0 0		
		Syjudin Ahmed	Do.	Bahadurpur, thana Shibehur	2,000 0 0		
		Rajoni Kantha Ghatak	Do.	Balichar, thana Palong	1,000 0 0		
		Chandra Kumar Sen	Do.	Ditto ditto	250 0 0		
		Mohesh Chandra Mukerji	Do.	Palong, thana Palong	300 0 0		
		Baikanta Chandra Saha	Do.	Tulashar, thana Palong	700 0 0		
		Baboo Kali Krishna Tagore	Do.	Hatoria, outpost Burihat	700 0 0		
		Dena Bandhu Sikdar	Do.	Jhikarhati, ditto	800 0 0		
		Hama Charan Roy Choudhuri	Do.	Surgram, thana Gopalgunge	200 0 0		
		Works costing less than Rs. 200 each			(b) 420 0 0	10,150 0 0	
Dacca		Raboo Behari Lal Roy	Higher class English school.	Barisal	900 0 0		
		Tukari Peshakar	Tank with masonry ghât.	Jhalakati	300 0 0		
		Achghar Sepahi	Tank	Barapata	500 0 0		
		Hira Gazi	Do.	Charpata	200 0 0		
		Jinnatali Taluqdar	Do.	Chhotapata	700 0 0		
		Works costing less than Rs. 200 each			260 0 0	2,400 0 0	
Mymensingh		Bhola Nath Bhaduri	Tank	Blakbhakia, police-station Durgapore.	500 0 0		
		Jorip Sheikh	Do.	Kalpa, police-station Kut-wali.	375 0 0		
		Kubir Sheikh	Do.	Kushar, police-station Kut-wali.	400 0 0		
		Munshi Mandal	Do.	Balashar, police-station Phulbaria.	600 0 0		
		Lesee Munshi	Do.	Nyarbari, police-station Phulbaria.	400 0 0		
		Nobin Kishori Choudhuran	Do.	Luchipore, police-station Phulbaria.	500 0 0		
		Har Dass	Do.	Angaripara, police-station Phulbaria.	500 0 0		
		Nur Dass	Do.	Chowdar, police-station Phulbaria.	350 0 0		
		Jabir Bepari	Do.	Anbapara Joydee, police-station Phulbaria.	375 0 0		
		Tenkar Dass	Do.	Ditto ditto	350 0 0		
		Sharoop Bepari	Do.	Anburi, police-station Phulbaria.	475 0 0		
		Anmar Singh	Do.	Koy-harchalla, police-station Phulbaria.	475 0 0		
		Karim Rahim Sheikh	Do.	Rahimpore, police-station Phulbaria.	400 0 0		
		Kali Nath Neogi, Taluqdar	Do.	Deor, outpost Pengna	700 0 0		
		Thakur Das Shaha	Do.	Sarishabari, ditto	518 0 0		
		Biswasvari Devi Choudhrani	Do.	Issergunge, outpost Issergunge.	4,500 0 0		
		Mahajan Sheikh	Do.	Nandail, outpost Nandail	400 0 0		
		Mahari Doi	Do.	Jangerpore, ditto	300 0 0		
		Khabili Mir Sarkar	Do.	Ditto ditto	400 0 0		
		Soleman Sheikh	Do.	Kalkapore ditto	500 0 0		
		Baboo Gobinda Chandra Roy	Well	Bashaherhut, police-station Tangail.	1,000 0 0		
				TOTAL OF Dacca DIVISION		13,518 0 0	27,380 0 0
CHITTAGONG	Tipperah	Rasul Ali	New tank	Karainkandy, Daudkandy	200 0 0		
		Shafarudy	Ditto	Bakstarampur ditto	250 0 0		
		Rasul	Ditto	Ditto ditto	200 0 0		
		Narain Kaibarta	Ditto	Ditto ditto	300 0 0		
		Alimuddy	Ditto	Shuwakandee ditto	300 0 0		
		Ektar	Ditto	Kamarkandy ditto	400 0 0		
		Shakir Mahomed	Ditto	Haripur ditto	200 0 0		
		Hushanuddi	Ditto	Biramkandy ditto	200 0 0		
		Works costing less than Rs. 200 each			230 0 0	2,980 0 0	
	Noakholly	Petamber Shaha	Tank	Bashpara, Chagalnya	1,000 0 0		
		Works costing less than Rs. 200 each			230 0 0	1,230 0 0	
	Chittagong	Susti Charan Masumdar	Tank	Suchakraundi Pates	1,200 0 0		
		Chand Meah	Do.	Higuli, Mirkesari	500 0 0		
		Samed Ali	Do.	Paschim, Isakhali, ditto	500 0 0		
	Chittagong Hill Tracts.	Nil.				2,900 0 0	
				TOTAL OF CHITTAGONG DIVISION			5,716 0 0
PATNA	Patna	Tulsi Dass Mahanth	2 masonry wells	Ichhose	200 0 0		
		Moulvie Ali Ahmad, for Bibi Sogra, widow of Moulvie Abdul Aziz.	Tank	Koila	25,000 0 0		
		Works costing less than Rs. 200 each			667 0 0	25,867 0 0	

(a) District Board paid half the amount.

(b) Of this amount, District Board paid Rs. 150.

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of districts.	Grand Total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
PATNA— contd.	Gya	E. Solano, Esq.	Embankment	Belsour	483 0 0		
		Ditto	Ditto	Rupach	335 0 0		
		Ditto	Ditto	Gouspore Jounah	200 0 0		
		Hurbun Gir Gosain	Tank	Bodh Gya	200 0 0		
		Baboo Bulaki Lal Dewan of Baboo	Well	Beldari Hamlet	200 0 0		
		Ran Bahadur Singh					
		Ali Raza Khan	Do.	Nojoni	200 0 0		
		Heera Singh	Do.	Karnathoo	200 0 0		
		Mewa Lal	Do.	Asni	200 0 0		
		Sahai Singh	Do.	Goodroo	200 0 0		
	Shahabad	Kunj Behari Sahu	Do.	Basorah	200 0 0		
		Gosain Himuldeo Gir	Do.	Gosain Peshra	200 0 0		
		Gineria	Do.	Daudnagar	200 0 0		
		Phulmanis	Do.	Ajnt	200 0 0		
		Paramhans Babaji	Do.	Kishunpur Khurd	400 0 0		
		Works costing less than Rs. 200 each			6,164 0 0	10,202 0 0	
		Ram Jiwan Roy	Masonry well	Lowhur Khurd	225 0 0		
		Mukhran Dass	Ditto	Sinha	200 0 0		
		Bhirkoo Lal	Ditto	Kalia-pore	200 0 0		
		Ramsaran Misair	Ditto	Sonbarsa	250 0 0		
PATNA— contd.	Durbhanga	Shoo Dutt Lal	Ditto	Hurdia	200 0 0		
		Lugeshwar Lal	Ditto	Ditto	200 0 0		
		Masamut Myla	Ditto	Baran	300 0 0		
		Baboo Lal Nooniar	Ditto	Arnon	270 0 0		
		Golab Shah	Ditto	Soputi	300 0 0		
		Amir Singh	Ditto	Chandwat	400 0 0		
		Baboo Chatur Singh	Ditto	Barigan	300 0 0		
		Akhaj Teli	Ditto	Kirpa	200 0 0		
		Kaloo Singh	Ditto	Natukpur	200 0 0		
		Imrit Lal	Ditto	Tiwai	300 0 0		
	Muzaffarpore	Musamut Radha Kuar	Tank	Mohaniah	200 0 0		
		Rameshwar Pandey	Do.	Kabirajpur	200 0 0		
		Works costing less than Rs. 200 each			2,408 0 0	6,543 0 0	
		Gobind Sahu	Tank	Rhour	200 0 0		
		Mohunt Narsing Dass	Do.	Rampatti	2,000 0 0		
		Kalar Thakoor	Do.	Maimal	200 0 0		
		Bidy Nath Jha	Do.	Shubhankarpore	200 0 0		
		Jadu Nandan Pathak	Do.	Sannat	700 0 0		
		Chos Monde	Do.	Barli	500 0 0		
		Jhomak Gowala	Do.	Sodra	600 0 0		
PATNA— contd.	Durbhanga	Hita Gowala	Do.	Do.	200 0 0		
		Mohunt Narsing Dass	Do.	Madhwapore	600 0 0		
		Ram Dass Gowala	Do.	Deodha	700 0 0		
		Chandi Baboo	Do.	Parsoni	2,000 0 0		
		Thithur Jha	Do.	Kakrowl	500 0 0		
		Bidy Nath Rai	Do.	Karbi	400 0 0		
		Shakti Isuf	Do.	Murith	1,000 0 0		
		Diambar Singh	Do.	Andhera Moth	1,000 0 0		
		Rangi Sahu	Do.	Pahio	600 0 0		
		Bhawani Mondar	Do.	Do.	800 0 0		
	Durbhanga	Jalim Mondar	Do.	Darabha	1,000 0 0		
		Sopan Rawot	Do.	Kusmar	900 0 0		
		Poran Gowala	Do.	Bhepare	900 0 0		
		Jhomak Gowala	Do.	Jhongipatti	900 0 0		
		Rampat Mondar	Do.	Gotparahi	700 0 0		
		Cheddi Sahu	Do.	Madhwapore	300 0 0		
		Panup Lal Sahu	Do.	Lachimpore	1,000 0 0		
		Deonath Jha	Do.	Borenia	1,000 0 0		
		Dooga Chowdhory	Do.	Tara Sahi	1,000 0 0		
		Monsal Gowala	Do.	Sandsan	1,500 0 0		
PATNA— contd.	Durbhanga	Bacha Thakur	Do.	Laduri	1,500 0 0		
		Gunga Pershad	Do.	Hartharpore	1,000 0 0		
		Ranga Jha	Do.	Mohuna	1,000 0 0		
		Bhaje Chowdhory	Do.	Kotulpore	600 0 0		
		Kari Jha	Do.	Bytha	900 0 0		
		Dodhrain Ojain	Do.	Rossari	1,000 0 0		
		Jungli Jha	Do.	Nawanagar	1,500 0 0		
		Mohi Sori	Do.	Kusmar	900 0 0		
		Shakib Fala Ally	Masonry well	Magurahi	1,000 0 0		
		Jhota Teli	Do.	Mahomedpore	700 0 0		
	Muzaffarpore	Laila Baboo alias Baboo Brij Behari Lal	Tank	Sari	900 0 0		
		Works costing less than Rs. 200 each			4,308 0 0	28,443 0 0	
		Showdhary Thakur	Tank	Patahirup	300 0 0		
		Jewan Teli	Well	Bairia	200 0 0		
		Danri Lal	Tank	Deoria	200 0 0		
		Luchmi Pandey	Bridge	Mohna	500 0 0		
		Kansia Pandey	Tank	Bahilwara Rasulabad	2,500 0 0		
		Kunjbehari Doobey	Well	Saidpore Gonsah	250 0 0		
		Sohar Barar	Tank	Mail	1,001 0 0		
		Gowri Singh	Do.	Saidpore	200 0 0		
PATNA— contd.	Muzaffarpore	Ram Sahai Koerce	Bridge	Mothua Malik	300 0 0		
		Nathu Mahon	Tank	Sonbarsa	700 0 0		
		Ram Charan Raut	Do.	Rajwara	300 0 0		
		Mahadeb Raut	Do.	Dalokwa	1,000 0 0		
		Ajodhya Nath Misser	Do.	Do.	1,000 0 0		
		Makund Jha	Do.	Pata	700 0 0		
		Nathu Sahu Teli	Do.	Samor	800 0 0		
		Tiluck Khawas	Do.	Vitha Kulan	1,000 0 0		
		Maniar Koombar	Do.	Simlabin	600 0 0		
		Works costing less than Rs. 200 each		Bisputti	700 0 0		
	Barun	Gokul Pandey	Well		14,904 0 0	27,455 0 0	
		Gopi Ballam Lal	Do.	Dharaha	200 0 0		
		Gunga Dyni Sah	Do.	Sahooly	200 0 0		
		Rajhan Singh	Do.	Sadpore Dighwara	200 0 0		
		Indeerjeet Pershad	Do.	Chokanar	200 0 0		
		Seedha Singh	Do.	Doonry	200 0 0		
		Ram Bahai Sah	Do.	Pendhari	200 0 0		
		Shew Dewan Lal	Do.	Jahnpore	200 0 0		
		Gokhool Lal	Do.	Bishoonpura	200 0 0		
		Meetarjeet Baranwar	Do.	Uphar	400 0 0		
PATNA— contd.	Barun	Baboo Ram Singh	Do.	Durooli	250 0 0		
		Thakur Pershad	Do.	Shahpore	250 0 0		
		Imrit Sahu	Tank	Mizapore	400 0 0		
		Works costing less than Rs. 200 each		Pasnowill	2,000 0 0		
					19,414 0 0	24,314 0 0	

DIVISION.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of districts.	Grand Total of Division.
					Rs. A. P.	Rs. A. P.	Rs. A. P.
PATNA—continued.	Chumparan	Hurihar Misir	2 Wells	Sugano	500 0 0		
		Bhoirab Sahu	Bridge	Monna Chupra	500 0 0		
		Preag Torha	Do.	Ditto	200 0 0		
		Jagoo Bhagat	Do.	Hishoonpura	300 0 0		
		Tappi Thakur	Tank	Moodia	200 0 0		
		Ghun Syam Asiri	Well	Khandiwarwa	400 0 0		
		Fajdar Sing	Tank	Khajooria	1,000 0 0		
		Kadal Rai	Do.	Ditto	200 0 0		
		Purmeswar Rai	Road	Jhanera Jaman	400 0 0		
		Doolhin Saheba Bethia	Well	Bhuralia	200 0 0		
		Ditto	Do.	Parundra	200 0 0		
		Ram Durshun Pande	Do.	Jascolia	225 0 0		
		Hurbangi Misir	Do.	Jogipore	250 0 0		
		Lall Chand Chamar	2 Wells	Beldari	200 0 0		
		Pringar Rai	Well	Bukhria	200 0 0		
		Dulhin Saheb Bethiah	2 Wells	Nawapore	200 0 0		
		Chhathoo Tell	Well	Muthpoli	350 0 0		
		Kunkar Tell	Do.	Do.	300 0 0		
		Narsingh Sahoy	2 Wells	Mataria	500 0 0		
		Bagha Jagtu Mullah	Well	Parsawni	250 0 0		
		Khaki Baba Sadhu	Do.	Lagunba	300 0 0		
		Works costing less than Rs. 200 each.			12,744 0 0		
				TOTAL OF PATNA DIVISION		19,519 0 0	1,52,343 0 0
BHAUL- FORE.	Monghyr	Bhathu Modi	Tank	Sewab	400 0 0		
		Jahuri Munder Kaire	Masonry well	Dharona	400 0 0		
		Mannu Rai Babhan	Ditto	Hahari	400 0 0		
		Maharaja Lachmiasur Singh	2 Masonry wells	Kharapore	400 0 0		
		Thakuri Modi	Masonry well	Ditto	300 0 0		
		Dukhi Choudhury	Ditto	Lanchi	250 0 0		
		Raja Padmanand Singh	Ditto	Gopra	300 0 0		
		Randi Rai	Ditto	Kajuria	250 0 0		
		Syam Goswain	Ditto	Bhaskhar	200 0 0		
		Bachu Choudhury	Ditto	Dariapur	200 0 0		
		Baboo Sewa Dhin Singh	Ditto	Sakarpura	250 0 0		
		Ram Manoo Bhagat	2 Masonry wells	Maleypur	300 0 0		
		Jest Mahadoor Singh	Masonry well	Raihora	400 0 0		
		Nawab Ali Khan	Ditto	Kheri Rampur	200 0 0		
		Khub Lall Beldar	Ditto	Hussanabad	500 0 0		
		Deoki Kesar Benia	Ditto	Labanah	200 0 0		
		Rudhan Mahton	Ditto	Dardih	200 0 0		
		Kanbala Modi	Ditto	Karandih	200 0 0		
		Mago Kurmi	Ditto	Nagri	300 0 0		
		Bawan Baboo	Ditto	Bamirpur	200 0 0		
		Wife of Chaman Singh	Ditto	Ula	200 0 0		
		Dhannu Gowala	Ditto	Indiar	200 0 0		
		Chatri Hazari	Ditto	Hiratalah	300 0 0		
		Ram Kankir Dass Goswain	Ditto	Tetri	300 0 0		
		Rhnan Sahu	Ditto	Meha	300 0 0		
		Mir Nasir	Ditto	Hoseina	300 0 0		
		Ranga Singh	Ditto	Kushba	300 0 0		
		Golab Singh	Ditto	Sako	200 0 0		
		Parsee Lall	Ditto	Babhungaon	200 0 0		
		Jhanu Dhanuk	Ditto	Daniapur	300 0 0		
		Mohun Halwai	Ditto	Bajetpore	200 0 0		
		Perso Bahhin, wife of Durga Singh	Ditto	Behat	500 0 0		
		Works costing less than Rs. 200 each		Sabona	200 0 0		
					4,955 0 0	14,355 0 0	
BHAUL- FORE.	Bhagulpore	Bhichuk Nath Pande	A masonry bridge	Basiran	1,000 0 0		
		Lachman Munder	Tank	Narown	200 0 0		
		Nalunul Thakur	Do.	Khasunpatti	500 0 0		
		Dukha Munder	Do.	Kanoolyatiari	500 0 0		
		Tulsi Munder	Do.	Jetahpore	700 0 0		
		Kriksha Dhan Das	Do.	Bhirkhee	1,000 0 0		
		Khunter Gowala	Do.	Permanandpore	700 0 0		
		Suhu Lall Patwari	Do.	Singewarthan	500 0 0		
		Putter Jha	Do.	Abhuar	600 0 0		
		Gokal Chowdhury	Do.	Dinaputti	600 0 0		
		Leela Munder	Do.	Sernighartolacheka	500 0 0		
		Ringwan Gowala	Do.	Nawabakur	400 0 0		
		Boni Dutt Brahmin	Do.	Majhpore	400 0 0		
		Aak Mahara Bhat	Do.	Thukraha	450 0 0		
		Jai Narain Singh	Do.	Sukhanagur	400 0 0		
		Musamat Kapurbati Kuseari	Do.	Amarpore	1,300 0 0		
		Musamat Ghar Bharin Kumri	Do.	Rahna	500 0 0		
		Chooraman Jha	Do.	Kahera	775 0 0		
		Nandu Lal	A masonry well	Satchera	2,000 0 0		
		Manik Chand Sahu	Ditto	Barhana	500 0 0		
		Khokun Sahu	Ditto	Ekdara	400 0 0		
		Works costing less than Rs. 200 each			150 0 0	14,075 0 0	
BHAUL- FORE.	Purneah	Hazari Mandal	A tank	Kukronee	700 0 0		
		Murad Sao	Do.	Patoah	700 0 0		
		Nand Kishore Bha	Do.	Do.	325 0 0		
		Miter Nath Jha	A well	Bissenpore	300 0 0		
		Radha Kant Ojha	Do.	Do.	250 0 0		
		Works costing less than Rs. 200 each			650 0 0	2,925 0 0	
	Maldah	Baboo Sarat Chandra Rai Chowdhury	Masonry bridge	Mobarakpore	4,000 0 0		
		Kafat Ula Munder	Tank	Nayadab	700 0 0		
		Baboo Sarat Chandra Rai Chowdhury	School building	Sinchya	2,500 0 0	7,200 0 0	
	Sonthal Per- gunnahs.	Dukhi Man	Tank	Kanco	400 0 0		
		Nandoo Das	Randh, 740 feet	Pajodsha	400 0 0		
		Ghatwala, mustagis and ryots of tun- nah Saruth Deoghur.	37 Dams and bandhs	Throughout Deoghur sub- division.	1,400 0 0		
		Mr. W. M. Grant	Cleaning and deepening of Pheta banah.	Dumka	500 0 0		
		Works costing less than Rs. 200 each			62 0 0	2,822 0 0	
				TOTAL OF BHAGULPORE DIVISION			41,377 0 0
OHARA	Outtack	Apuri Rewa of Moogbadi, pergunnah Derabist.	Tank	Moogbadi	600 0 0		
		Works costing less than Rs. 200 each			456 5 0	1,056 5 0	

Division.	District.	Name of individual by whom constructed.	Description of work.	Place where constructed.	Cost.	Total of districts.	Grand Total of Division.
ORISSA—con- cluded.	Balasore	Apatti Dibbs of Kapasirta, pergunnah Mongla in Kaithi.	Tank	Napo, police-station Jellasore	Rs. A. P. 1,070 0 0	Rs. A. P. 6,600 0 0	Rs. A. P. 9,652 8 0
		Dhoochuli Charan Jemah of Nepo	Do.	Khoorda, police-station do.	200 0 0		
		Baboo Akhoy Narayan Das of Bali- shahi in Midnapur district.	Do.	Bichitrapur, police-station Ballapal.	200 0 0		
		Baboo Sunder Das of Kokhra, per- gunnah Mohepur.	Do.	Mohepur, police-station Ballapal.	200 0 0		
		Baboo Akhoy Kumar Das of Dehurda, pergunnah Birkul.	Do.	Puntye, police-station Balla- pal.	200 0 0		
		Hurry Panigrahi of Diya, pergunnah Nanglesser.	Do.	Koosda, police-station Busta	350 0 0		
		Balbhadra Das of Baghua, pergunnah Banchar.	Do.	Hanagori, police-station do.	600 0 0		
		Arun Das Nawashahi, pergunnah Arso.	Do.	Nochipiri, police-station Busta.	900 0 0		
		Ramprasad Mallik of Nalanga, per- gunnah Runduia Argurah.	Do.	Nalanga, police-station Bhud- druck.	300 0 0		
		Kali Panda of Patooli, pergunnah Soso.	Do.	Patooli, police-station Bhud- druck.	325 0 0		
		Fakir Sahoo and Kelsy Bank of Ka- randimal, pergunnah Kyma.	Do.	Korandimal, police-station Chandballi.	200 0 0		
		Works costing less than Rs. 200 each	.....	.....	1,545 0 0
	Pooree	Bharat Sahu	Tank	Panchpalli, Khoorda	400 0 0		
		Dinabandhu Misra	Do.	Sardapur, ditto	600 0 0		
		Bhagirathi Mahanti	Do.	Antarkian, Banpur	420 0 0		
		Works costing less than Rs. 200 each	.....	.....	480 0 0
	TOTAL OF ORISSA DIVISION			
CHOTA NAG- FORE.	Hazaribagh	F. F. Christian, Esq., of Gawan	A bandh	Tisree	200 0 0	300 0 0	1,355 0 0
	Lohardogga	Works costing less than Rs. 200 each	.....	.....	100 0 0
		Works costing less than Rs. 200 each	.....	.....	155 0 0
	Manbhoom	Kanoo Mundle of village Burea, per- gunnah Gola in Hazaribagh district.	Excavating a tank ...	Digardi, police-station Jhalda	800 0 0		
		Boicram Ghosal of village Kharkhari, pergunnah Topechansi.	Ditto	Kharkhari, pergunnah Topechansi.	200 0 0		
		Gopi Nath Bhagat of village Toondi, pergunnah Toondi.	Well	Toondi, pergunnah Toondi	200 0 0		
		Works costing less than Rs. 200 each	.....	.....	150 0 0
	Singbhoom	Sridhar Mandal of Seraikella	Bandh	Jumal in Seraikella	240 0 0		
		Baboo Gokool Chunder Singh Deo of Seraikella.	Do.	Bhurkuli in ditto	200 0 0		
		Modan Patter of Dhulbhoom	Tank	Parabhakti in Dhulbhoom	200 0 0		
		Judhistir Mandal of do.	Do.	Jamundihi in ditto	300 0 0		
	TOTAL OF CHOTA NAGFORE DIVISION				3,100 0

Summary.

Total of	Division	Rs.	A.	P.
Ditto	Burdwan	23,165	0	0
Ditto	Presidency	81,780	9	0
Ditto	Rajshahye	50,668	0	0
Ditto	Dacca	27,380	0	0
Ditto	Chittagong	5,716	0	0
Ditto	Patna	1,52,343	0	0
Ditto	Bhagulpore	41,377	0	0
Ditto	Orissa	9,652	8	0
Ditto	Chota Nagpore	3,100	0	0
GRAND TOTAL OF DIVISIONS		3,95,242	1	0

PUBLIC WORKS DEPARTMENT,—BENGAL.

IRRIGATION.

THE following Note on irrigation operations from the Sone Canals during the kharif season 1889-90 is published for general information.

By order of the Lieutenant-Governor of Bengal,

C. W. I. HARRISON, *Lieut.-Col., R.E.*,

Offg. Joint-Secy. to the Govt. of Bengal, P. W. Dept.

Note by C. W. ODLING, Esq., Superintending Engineer, Sone Circle, on irrigation operations from the Sone Canals during the kharif season 18 89-90,—dated 12th January 1890.

1. The season, though the rainfall was at times in defect, was on the whole not an unfavourable one so far as the rice crop was concerned, rain continuing to fall to a later date in September than was the case in the previous year. The main features of the rainfall during the two years are shown in the table below :—

Comparative statement of rainfall during the years 1888 and 1889.

MONTHS.	RECORDING STATIONS.				
	Arrah.	Buxar.	Bankipore.	Dehree.	
	Inches.	Inches.	Inches.	Inches.	
July 1889 ...	13.58	16.89	8.84	7.22	
August „ ...	13.68	11.09	9.49	19.21	
September „ ...	5.15	6.00	15.70	7.00	
October „ ...	0.92	1.02	0.05	2.34	
Total ...	33.33	35.00	34.08	35.77	34.55 average.
July 1888 ...	17.90	12.11	15.14	15.90	
August „ ...	17.74	13.39	17.11	15.36	
September „ ...	5.58	11.25	3.17	7.93	
October „ ...	0.43	0.60	Nil	1.36	
Total ...	41.65	37.35	35.42	40.55	38.74

The rainfall during 1889 was little, if at all, below the normal rainfall, which is 41.25 inches for the year, for the area commanded by the Sone Canals. There was, however, except at Bankipore no rain until the last day of the *Hutia* (25th September to 8th October), and the fall during the whole month of October was scanty and made up of insignificant showers.

2. The area irrigated during the season, and during the corresponding periods of 1888, 1887 and 1886, are shown in the statement following :—

	Five-year leases.	Annual kharif.	Sugarcane.	Kharif rainfall, July to October, inclusive average of head- quarters stations.
	Acres.	Acres.	Acres.	
1889-90 ...	216,000	38,500	5,626	34.55
1888-89 ...	200,102	69,628	4,600	39.12
1887-88 ...	210,164	57,595	6,265	26.65
1886-87 ...	194,556	30,082	11,626	49.40

The figures for 1889-90 are approximate, as the complete areas have not yet been reported, but on the information at present available the total area irrigated was 260,000 acres against 274,330 acres in 1888-89.

The deficiency is wholly in annual kharif leases, the five-year leases having increased by 16,000 acres, notwithstanding the lapse of leases for 45,445 acres on the 1st April 1889. Applications for 5-year leases for 29,788 acres were refused for want of proper channels or other good reasons. The falling off in the area under irrigation, compared with the previous year, shows how much more potent a factor is the time at which rain occurs than the total rainfall of the season or year.

3. The discharge of the canals during the thirty days of greatest demand for the last two years is shown in the subjoined abstract:—

PERIOD.	DISCHARGE IN CUBIC FEET PER SECOND.			
	Eastern Main Canal.	Western Main Canal.	Arrah Canal system.	Bukar Canal system.
1889.				
September, 21st to 30th ...	1,021	1,805	1,006	770
October, 1st to 10th ...	1,482	3,857	2,008	1,247
Do., 10th to 20th ...	1,457	3,474	2,155	1,296
1888.				
September, 21st to 30th ...	1,057	2,138	1,700	551
October, 1st to 10th ...	1,439	3,427	2,076	1,225
Do., 10th to 20th ...	1,450	3,858	2,360	1,492

It will be noticed that the demand for water during the first twenty days of October was not materially less than in 1888.

4. The same precautions as were reported last year have been taken to confine the supply of water to leased areas.

5. The report is submitted by me, as I was in charge of the circle during the *kharif* season.

C. W. ODLING,
Superintending Engineer on Special duty.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 11th January, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.																
BENGAL.																			
Western Districts.																			
BURDWAN DIV.	1 Burdwan Jan. 11, '90	Nil	Weather—rather a little warm than what should be, considering the season. Harvesting of <i>amun</i> is going on. Prospect of <i>rubbi</i> reported to be good everywhere except at the head-quarters subdivision, where it is below average. Prospects of potato and sugarcane good. Price of common rice at— <table><tr><td>Burdwan</td><td>...</td><td>...</td><td>Srs. 16½</td></tr><tr><td>Culna</td><td>...</td><td>...</td><td>15</td></tr><tr><td>Cutwa</td><td>...</td><td>...</td><td>15½</td></tr><tr><td>Raneegunge</td><td>...</td><td>...</td><td>16</td></tr></table> } per rupee.	Burdwan	Srs. 16½	Culna	15	Cutwa	15½	Raneegunge	16
	Burdwan	Srs. 16½															
	Culna	15															
	Cutwa	15½															
	Raneegunge	16															
2 Bankoora „ 11, '90	Nil	Weather—cold and clear. Outturn of <i>amun</i> crop is 10 annas on the average in the Sudder. <i>Rubbi</i> crops growing tolerably well. Sugarcane being pressed in some parts of the Bishnupore subdivision. Coarse rice is selling at 21 seers per rupee at Sudder and 18½ seers at the Bishnupore subdivision.																	
3 Birbhum „ 11, '90	Nil	Weather—cloudy and warm for time of year. Very good prospects for winter crops of all kinds. Price of rice 16½ seers at Soory and 18 seers at Rampore Hat, per rupee.																	
4 Midnapur „ 11, '90	Nil	Weather—fair. <i>Amun</i> harvest nearly completed. The cutting of <i>rubbi</i> has commenced in some places. This crop is not a good one. Prices— <table><tr><td>Sudder</td><td>...</td><td>...</td><td>Srs. 16</td></tr><tr><td>Contai</td><td>...</td><td>...</td><td>25</td></tr><tr><td>Tamluk</td><td>...</td><td>...</td><td>18</td></tr><tr><td>Ghatal</td><td>...</td><td>...</td><td>20</td></tr></table> } per rupee.	Sudder	Srs. 16	Contai	25	Tamluk	18	Ghatal	20	
Sudder	Srs. 16																
Contai	25																
Tamluk	18																
Ghatal	20																
5 Hooghly „ 11, '90	Nil	Weather—very close. Harvesting of <i>amun</i> is nearly completed. Prospects of <i>rubbi</i> crop, specially sugarcane, is very hopeful. Price of common rice— <table><tr><td>Sudder</td><td>...</td><td>...</td><td>Srs. Ch. 12 0</td></tr><tr><td>Serampore</td><td>...</td><td>...</td><td>11 8</td></tr><tr><td>Jehanabad</td><td>...</td><td>...</td><td>18 7</td></tr></table> } per rupee.	Sudder	Srs. Ch. 12 0	Serampore	11 8	Jehanabad	18 7					
Sudder	Srs. Ch. 12 0																
Serampore	11 8																
Jehanabad	18 7																
Howrah „ 11, '90	Nil	Weather—warm for the season. Rain brewing up apparently. Prospects of crops good. <i>Amun</i> harvest going on. Price of common rice— <table><tr><td>Sudder</td><td>...</td><td>...</td><td>Srs. 12½</td></tr><tr><td>Uluberya</td><td>...</td><td>...</td><td>15½</td></tr></table> } per rupee.	Sudder	Srs. 12½	Uluberya	15½									
Sudder	Srs. 12½																
Uluberya	15½																
Central Districts.																			
PRESIDENCY DIV.	6 24-Perghs. Jan. 11, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> going on. Winter crops doing well.																
	7 Nuddea „ 11, '90	Nil	Weather—seasonable. All the winter crops are doing well. <i>Kalai</i> is being cut and harvested.																
	8 Khoolna „ 11, '90	Nil	Weather—seasonable. <i>Amun</i> harvest still progressing; outturn good. Prospects of winter crop good.																
	9 Jessore „ 11, '90	Nil	Weather—cloudy in the latter part of the week. <i>Amun</i> harvesting nearly over. Cold-weather crops doing fairly well. Prices of rice stationary.																
	10 Moorshedabad „ 11, '90	Nil	Weather—clear and cold. <i>Amun</i> is still being cut. Prospects of <i>rubbi</i> continues favourable.																
RAJSHAHY DIV.	11 Dinagepur „ 11, '90	Nil	Weather—seasonable. The harvesting of winter rice nearly over. Pressing of sugarcane begun. Prospect of spring crops good.																
	12 Rajshahye „ 11, '90	Nil	Weather—seasonable and partially cloudy. The prospect of the winter crop is generally good all over and sowing has come to a close. Prospect of ganja good at Nowgong. Rice sells at 16 seers 9 chittacks for the rupee.																
	13 Rungpur „ 11, '90	Nil	Weather—overcast, warmer than last week. Sugarcane is being cut and crushed. Results good. Mustard is coming into seed. Tobacco is flourishing. Prospects of <i>rubbi</i> favourable. Prices have a downward tendency.																
	14 Bogra „ 11, '90	Nil	Weather—days hot and nights somewhat cooler. One-eighth part of <i>amun</i> crop is remaining to be reaped. The expected outturn is about 18 annas. Other crops are also being reaped. Common rice at head-quarters is 21 seers per rupee.																
	15 Pubna „ 11, '90	Nil	Weather—seasonable. <i>Amun</i> crop on low lands still being harvested. Outturn of <i>amun</i> below average in Sudder subdivision. Sugarcane deficient. Cold-weather crops satisfactory. Prices somewhat lower.																
	16 Darjeeling „ 11, '90	16	Weather—cloudy and cold. Prospects generally good.																
	17 Julpigoree „ 11, '90	05	Weather—cloudy and cold, but fair in the latter part of the week. Cutting of <i>haimanti</i> paddy nearly finished, and 14 annas outturn is expected. Tobacco plants doing well. No change in prices.																

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divs.	18 Dacca Jan. 11, '90	Nil	Weather—cool and fine. <i>Boro</i> paddy being sown. Winter crops doing well. Harvesting of <i>mung</i> and <i>maskalai</i> commenced in the Manickgunge subdivision. Fodder is available. Prices of common rice stationary.
	19 Furreedpur „ 11, '90	Nil	Weather—warmer than usual at this time of the year. <i>Amun</i> paddy harvested. <i>Kalai</i> and <i>mung</i> being gathered. State of <i>rubbi</i> crops fair. Coarse rice selling at 17 seers per rupee in Madaripur and at 16 seers per rupee in Goalundo.
	20 Backergunge „ 11, '90	Nil	Weather—seasonable. Prospects of crops good. Harvesting of <i>amun</i> nearly completed. Common rice is selling at 16 seers per rupee.
	21 Mymensingh „ 11, '90	Nil	Weather—cool and bright. Prospects of <i>rubbi</i> crops good. Harvesting of <i>amun</i> paddy is still going on. Current price of the cheapest kind of rice is 12 seers 13 chittacks per rupee.
Chittagong Divs.	22 Chittagong „ 11, '90	Nil	Weather—seasonable. Outturn of <i>amun</i> is 14 annas. State of winter crop is good.
	23 Noakholly „ 11, '90	Nil	Weather—seasonable; cloudy at times. Reaping of <i>amun</i> almost completed. <i>Rubbi</i> crops doing well.
	24 Tipperah „ 11, '90	Nil	Weather—seasonable. Winter crops progressing well. Mustard is being collected.
	25 Chittagong Hill Tracts ...	...	Report not received.
	Hill Tipperah Jan. 11, '90	Nil	Weather—gloomy and at times cloudy. <i>Amun</i> paddy and cotton continue to be gathered. Sugarcane and mustard do not look well. Prospects of tobacco and chillies fair.
BEHAR.			
Patna Divs.	26 Patna „ 11, '90	Nil	Weather—cold. <i>Rubbi</i> crops are doing well. A shower of rain will still do some good to the standing crops. Mustard and pea are in pod. Prospects of poppy favourable. Prices of food-grains are almost stationary.
	27 Gya „ 11, '90	Nil	Weather—cold. Harvesting of paddy still going on. Prospect of <i>rubbi</i> is good. Poppy plants are thriving. No person on relief work; none gratuitously relieved. Food-stock sufficient.
	28 Shahabad „ 11, '90	Nil	Weather—seasonable, but rather milder. The prospects of <i>rubbi</i> and poppy continue to be good. Sugarcane being pressed. Prices stationary.
	29 Durbhunga „ 11, '90	Nil	Weather—mornings foggy, hot during the day. Harvesting of rice completed. <i>Rubbi</i> prospects continue favourable. A shower of rain is, however, wanted. Poppy is good. Lands being prepared for indigo. Prices almost stationary.
Bhagalpore Divs.	30 Mozufferpur „ 11, '90	Nil	Weather—rather cloudy during the week. Prospects of <i>rubbi</i> crop continue good. Poppy crop in Hajipur backward, and a good outturn not expected.
	31 Sarun „ 11, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> and poppy crops continue good. Sugarcane is being pressed. Outturn estimated at 16 annas.
	32 Chumparun „ 11, '90	Nil	Weather—cold and clear; occasionally cloudy. <i>Rubbi</i> and poppy in good condition. A good shower of rain within the next fortnight will ensure an excellent crop. New rice selling at 19 seers a rupee. Sugarcane pressing continues.
	33 Monghyr „ 11, '90	Nil	Weather—seasonable. <i>Aghani</i> paddy all harvested; outturn on the whole 14 annas. Standing <i>rubbi</i> crops doing well.
	34 Bhagulpur „ 11, '90	Nil	Weather—rather too warm; again mornings foggy. Rice harvest is almost over. Rain wanted for wheat and other <i>rubbi</i> crops.
	35 Purneah „ 11, '90	Nil	Weather—not so cold as is usual this time of the year. <i>Aghani</i> rice is nearly harvested. Outturn about average. Mustard and <i>kurthi</i> being reaped. <i>Rubbi</i> crops doing well. Prospects of tobacco good.
	36 Maldah „ 11, '90	Nil	Weather—rather hot for the season. Harvesting of winter rice crops still going on in some places. <i>Rubbi</i> crops are doing well everywhere except in thana English Bazar, where some damage has been done by insects. Common rice is selling at an average of 17 seers a rupee.
	37 Sonthal Pergas „ 11, '90	Nil	Weather—cold and clear. Harvesting of <i>dhan</i> nearly over; the outturn is almost an average one. <i>Rubbi</i> crops doing well and promise a good outturn.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
38	Cuttack	...	Report not received.
39	Pooree Jan. 11, '90	Nil	Weather—seasonable. Harvesting of the winter (late <i>sarad</i>) crop still continues. <i>Laghu sarad</i> was harvested with a good outturn. Prices of rice stationary.
40	Balasore „ 11, '90	Nil	Weather—seasonable. Scarcely any paddy remains uncut. <i>Rubbi</i> crops fair.
CHOTA NAGPORE.			
South-West Frontier Agency.			
41	Hazaribagh Jan. 11, '90	Nil	Weather seasonable. Crops in excellent condition generally. Poppy doing well. Sugarcane being squeezed.
42	Lohardugga „ 11, '90	Nil	Weather—seasonable; rather warmer. <i>Rubbi</i> crop is doing well, but some rain is wanted. Harvesting of paddy finished. Outturn appears to be fair.
43	Singbhoom „ 11, '90	Nil	Weather—seasonable. Crop prospects good. Sugarcane is expected to yield a full outturn everywhere. <i>Sarso</i> and <i>sorgo</i> full in pergunnah Dhalbhum and on an average 12 annas elsewhere. Prices stationary.
44	Manbhoom „ 11, '90	Nil	Weather—seasonable. Winter paddy still being threshed; probable outturn 14 annas. The crops on the grounds are mustard, sugarcane, and <i>arhar</i> . The prospects of these crops are promising.

Published for general information.

CALCUTTA ; REVENUE DEPT.,
The 14th January, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

STATEMENT SHOWING THE STOCKS OF RICE IN AND AROUND CALCUTTA.

STOCK IN HAND AS COMPILED ON—													
NAMES OF MARKS.	1st week of Jan. 1889.	1st week of Feb. 1889.	1st week of Mar. 1889.	1st week of April 1889.	1st week of May 1889.	1st week of June 1889.	1st week of July 1889.	1st week of August 1889.	1st week of Sept. 1889.	2nd week of Oct. 1889.	1st week of Nov. 1889.	1st week of Dec. 1889.	1st week of Jan. 1890.
Balachatta	Mds. 2,98,000	7,77,000	12,77,000	12,67,000	12,42,000	7,67,000	8,73,000	7,32,700	6,02,000	5,00,000	4,54,000	2,93,500	Mds. 3,00,000
Ooladanga	" 70,300	71,400	80,200	87,100	82,200	88,000	86,200	78,700	71,400	71,000	67,400	55,400	63,400
Chitpore, Golabaree, Coomercoo, Hakhoia, and Culpy Ghat.	" 6,40,500	6,90,000	7,05,000	7,64,000	7,54,200	6,94,200	6,83,400	6,07,700	5,76,300	6,74,100	6,53,300	5,86,000	6,00,400
Pathurghatta, Pofia, and Jorabagan.	" 4,000	3,500	2,000	3,200	3,000	2,000	2,000	3,000	4,000	5,000	8,000	3,000	4,000
Tollymore, Chitlah, Kiddlepore, and Moosthigunge.	" 1,05,000	1,26,000	1,37,400	1,43,100	1,50,000	1,10,700	1,03,700	1,19,700	72,200	61,500	60,200	68,100	82,700
21 Minor Basars (estimated) —	" 2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000	2,40,000
Other retail shops, 2,129 in number (estimated).	" 2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000	2,50,000
Baidrabbaty, Nowabganje, Bhudressour, and Chander-nagore.	" 22,500	14,924	20,403	19,792	20,005	19,925	19,996	18,117	14,255	14,382	13,410	14,080	28,405
Total	17,40,000	21,80,024	27,15,203	27,79,192	27,50,406	21,84,123	22,60,506	21,20,917	18,93,465	18,25,932	17,31,319	15,13,080	15,08,975
On Railway premises on both sides of the river.	11,091 (on 4th Jan. 1889.)	15,074 (on 4th Feb. 1889.)	6,532 (on 5th Mar. 1889.)	25,414 (on 4th April 1889.)	12,404 (on 4th May 1889.)	6,078 (on 3rd June 1889.)	7,750 (on 2nd July 1889.)	4,179 (on 3rd Aug. 1889.)	9,006 (on 2nd Sept. 1889.)	8,508 (on 2nd Oct. 1889.)	14,011 (on 3rd Nov. 1889.)	6,077 (on 3rd Dec. 1889.)	25,007 (on 2nd Jan. 1890.)
{ By Port Commissioners' returns.	40,003 (2nd to 4th Jan. 1889.)	44,254 (1st to 3rd Feb. 1889.)	31,037 (1st to 3rd Mar. 1889.)	23,440 (1st to 3rd April 1889.)	17,063 (1st to 3rd May 1889.)	16,006 (1st to 3rd June 1889.)	23,419 (1st to 3rd July 1889.)	1,22,232 (1st to 3rd Aug. 1889.)	22,333 (1st to 3rd Sept. 1889.)	17,852 (5th to 7th Oct. 1889.)	21,324 (1st to 3rd Nov. 1889.)	20,050 (1st to 3rd Dec. 1889.)	61,641 (2nd to 4th Jan. 1890.)
On boats — loaded — { By Canal returns	1,24,374 (2nd to 4th Jan. 1889.)	1,45,475 (1st to 3rd Feb. 1889.)	80,859 (1st to 3rd Mar. 1889.)	30,712 (1st to 3rd April 1889.)	5,972 (1st to 3rd May 1889.)	15,297 (1st to 3rd June 1889.)	27,105 (1st to 3rd July 1889.)	29,345 (1st to 3rd Aug. 1889.)	19,881 (1st to 3rd Sept. 1889.)	45,922 (5th to 7th Oct. 1889.)	14,715 (1st to 3rd Nov. 1889.)	8,852 (1st to 3rd Dec. 1889.)	1,31,815 (2nd to 4th Jan. 1890.)
Grand Total of Stocks	19,31,500	23,63,496	28,34,933	28,63,738	27,89,897	22,22,064	21,50,392	23,36,073	19,48,282	18,67,914	17,51,303	15,40,242	17,90,438
Probable stock available for exportation by sea.	61 lakhs	15½ lakhs	17½ lakhs	18 lakhs	17½ lakhs	11½ lakhs	12½ lakhs	12½ lakhs	9 lakhs	8½ lakhs	7½ lakhs	6 lakhs	7½ lakhs

P. NOLAN,
Secy. to the Govt. of Bengal.

STATISTICAL DEPARTMENT,
The 6th January, 1890.

Results of the Meteorological Observations taken at the Alipore Observatory from 5th to 11th January 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Jan.	5th	131.3	8.8	29.938	67.6	77.7	19.5	58.2	62.7	0.507	59.3	77	WSW and SW	66*	Nil	Partially cloudy, D, =.
"	6th	129.1	9.0	30.003	67.5	77.9	19.9	58.0	62.7	.509	59.4	77	SW and WNW	38	"	Chiefly clear, D, =.
"	7th	133.8	8.4	.022	67.2	77.7	19.8	57.9	62.6	.511	59.6	78	WNW and SW by W	61	"	Chiefly clear, D, =.
"	8th	135.5	9.1	29.981	67.4	78.5	20.2	58.3	62.8	.514	59.8	78	SW by W and WSW	70	"	Clear, D, =.
"	9th	127.8	8.9	30.006	65.3	76.0	20.7	55.3	59.8	.443	55.6	73	NNW, N and WNW	44	"	Clear, D, =.
"	10th	126.5	7.3	29.961	66.3	76.5	20.6	65.9	61.9	.503	59.1	78	WNW and W by N	35	"	Partially cloudy, D, =.
"	11th	134.9	9.0	.949	66.9	77.0	18.7	58.3	62.2	.499	58.9	75	W by N and WNW	52	"	Chiefly clear, D.

The mean pressure of the seven days ... 29.980

The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 30.020

The total number of hours of bright sunshine ... 60.5

The maximum possible number of hours of sunshine ... 75.5

The mean temperature of the seven days ... 66.9

The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 67.2

The extreme variation of temperature ... 23.2

The maximum temperature ... 78.5

The highest velocity of the wind in one hour from 8 A.M. of the 5th to mid-
night of the 11th January 1890 ... 9

The highest pressure of wind on one square foot ... Not measurable.

The mean relative humidity ... 77

The average relative humidity of the corresponding period for 24 years, S.-G.'s
Office ... 71

The total fall of rain from 5th to 11th January 1890 ... Nil

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.11

The total fall from 1st to 11th January 1890 ... Nil

The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.11

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

D. dew; = fog.

* Movement of wind from 8 A.M. to midnight of 5th January 1890.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

Meteorological Report of the Province of

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.																
			DISTRICT.	Representative stations.	AIR PRESSURE.					TEMPERATURE.					HUMIDITY.		CLOUD.		Rainfall.
					Highest, 8 A.M., barometer reading of month.	Lowest, 8 A.M., barometer reading of month.	Mean, 8 A.M., for month.	Mean reduced to sea-level.	Variation from normal mean.	Highest of month.	Lowest of month.	Mean daily maximum temperature.	Mean daily minimum temperature.	Mean daily temperature.	Variation from normal mean.	Mean, 8 A.M., humidity.	Variation from normal mean.	Mean cloud amount, 8 A.M.		Variation from normal mean, 8 A.M.
ORISSA.	Pooree	Pooree	30.121	29.946	30.030	30.043	—	85.2	53.0	81.5*	59.71	67.7*	—	83	—	1.3	—	0.17	
		Gopalnare	30.108	29.943	30.023	30.073	—0.03	83.7	57.5	79.0	63.9	71.3	+1.7	77	—	1.4	—	0.36	
		False Point	30.107	29.932	30.024	30.046	—0.09	80.9	52.0	77.5	57.5	67.5	+0.4	86	+5	2.5	0	1.04	
SOUTH-WEST BENGAL.	Cuttack	Cuttack	30.070	29.901	29.984	30.070	—0.015	84.8	53.9	81.7	59.2	70.5	+0.5	74	+2	2.9	+1.1	Nil	
	Balasore	Balasore	30.096	29.899	30.016	30.078	—0.015	84.9	50.5	78.6	55.1	66.8	+1.1	81	—	0.5	—	0.02	
	South-West Midnapore and South 24-Pergunnahs.	Saugor Island	30.109	29.937	30.031	30.058	—0.024	81.7	54.8	75.8	60.4	68.1	+0.8	87	+3	2.6	0	0.03	
SOUTH-WEST BENGAL.	Midnapore	Midnapore	29.986	29.814	29.907	30.007	—0.032	81.3	49.2	78.8	53.3	67.1	+0.5	74	—	1.4	—	Nil	
	24-Pergunnahs, Howrah, and Hooghly.	Calcutta	30.120	29.958	30.038	30.061	—0.026	80.0	51.3	76.4	57.0	66.7	+0.6	81	+2	1.4	—0.6	0.03	
	Burdwan	Burdwan	30.030	29.851	29.953	30.060	—0.039	82.1	52.3	78.0	57.0	67.5	+0.0	74	+3	1.6	—0.4	Nil	
SOUTH-WEST BENGAL.	Bankoora	Bankoora	29.811	29.606	29.730	30.050	—0.038	80.6	50.0	77.4	53.2	66.3	+0.2	76	—	1.4	—	Nil	
	West Burdwan and Beerbhoom.	Ranigunge	29.806	29.625	29.730†	30.084†	—0.024	80.9	50.2	78.5	55.0	66.7	+0.8	78	—	1.2	—	Nil	
	Moorsheadabad	Berhampore	30.070	29.864	29.985	30.056	—0.066	80.1	52.2	77.0	57.1	67.1	+1.3	88	+9	1.8	+0.2	Nil	
SOUTH-WEST BENGAL.	Nuddea	Krishnagore	30.002	29.912	30.014	30.081	—0.014	81.3	48.4	77.4	55.3	66.3	+0.4	85	—	1.6	—	Nil	
	Jessore and Khoosla	Jessore	30.090	29.900	30.012	30.047	—0.029	81.2	54.5	77.4	60.1	68.2	+1.7	92	+17	1.7	—0.3	Nil	
	Chittagong	Chittagong	30.010	29.827	29.919†	30.025†	—0.040	84.1	56.1	79.5	60.3	69.9	+1.9	88	+1	5.0*	+2.7	0.07	
SOUTH-WEST BENGAL.	Chittagong Hill Tracts	Demagri	Observations not received.																
	Backergunge	Barrisal	30.094	29.907	30.020	30.033	—0.018	81.8	54.1	77.1	58.4	67.8	+1.2	88	—	0.7	—	0.22	
	Noakholly	Noakholly	30.078	29.882	29.964	30.040	—	83.0	54.0	78.7	57.6	68.1	—	85	—	0.1	—	0.15	
SOUTH-WEST BENGAL.	Furreedpore	Furreedpore	30.002	29.906	30.008	30.050	—0.016	81.5	54.8	74.3†	59.3	66.7	+1.4	88	—	0.7	—	Nil	
	Dacca	Dacca	30.083	29.910	30.007	30.031	—0.034	84.6	55.3	78.9	58.9	68.9	+1.1	84	+5	2.1	+0.8	Nil	
	Tipperah	Comillah	30.097	29.899	30.004	30.041	—0.021	83.4	55.0	79.1	57.6	68.4	+2.0	86	—	0.7	—	Nil	
SOUTH-WEST BENGAL.	Mymensingh	Mymensingh	30.067	29.877	29.960	30.040	—0.023	81.8	53.4	78.1†	57.6	67.9†	+2.8	93	—	2.1	—	Nil	
	Bogra	Bogra	30.042	29.852	29.958	30.025	—0.017	81.3	52.4	78.1	56.1	67.1	+0.6	85	—	0.3	—	Nil	
	Pubna	Seraingunge	30.070	29.880	29.986	30.035	—0.035	81.2	51.9	78.0	56.9	67.5	+2.4	89	—	1.5	—	0.13	
SOUTH-WEST BENGAL.	Rajshahye	Rampore Beaulah.	30.000	29.809	29.903	30.036	—0.030	79.9	51.7	76.8	56.2	66.5	+2.7	89	—	0.6	—	Nil	
	Maldah	Maldah	30.067	29.899	29.985	30.071	—	80.5	48.8	77.7	53.6†	65.5†	—	82	—	0.3	—	Nil	
	Dinagore	Dinagore	30.026	29.823	29.928	30.057	—0.006	81.1	49.3	78.5	54.0	66.2	+1.1	86	—	0.5	—	Nil	
SOUTH-WEST BENGAL.	Rungpore	Rungpore	30.029	29.819	29.934	30.067	—0.030	81.4	48.7	78.1	54.1	66.1	+2.3	92	—	0	—	Nil	
	Jalpigoree and Cooch Behar.	Jalpigoree	29.859	29.650	29.763†	30.068†	—0.025	?	49.4	?	55.8	?	?	92	—	0.2	—	Nil	
	Darjeeling Hill Tracts...	Darjeeling	23.963	22.961	23.964	—	—0.023	55.2	35.0	53.8	38.4	46.1	+3.2	76	+2	2.6	—0.6	Nil	
SOUTH-WEST BENGAL.	Purneah and North Bhagulpore.	Purneah	30.032	29.815	29.930	30.063	—0.027	78.2	47.2	75.5	51.2	63.9	+0.4	89	+5	0.4	—0.6	Nil	
	Mozufferpore	Mozufferpore	Observations suspended.																
	Durbhunga	Durbhunga	29.991	29.789	29.898	30.078	—	79.9	51.6	76.8	55.3	66.1	+2.0	83	—2	0.2	—0.7	Nil	
SOUTH-WEST BENGAL.	Chumpanon	Motihari	29.932	29.702	29.816	30.078	—0.012	78.6	44.9	75.5	49.7	62.6	+1.3	86	—	0.1	—	Nil	
	Sarun	Chupra	29.951	29.723	29.879	30.085	—0.001	79.3	50.9	75.2	52.8	64.0	+2.4	72	—	0.1	—	Nil	
	Shahabad	Dehree	29.792	29.610	29.720	30.100	—0.015	81.8	49.0	76.9†	52.5	64.7†	+2.8	74	—	0.4	—	Nil	
SOUTH-WEST BENGAL.		Buxar	29.527	29.709	29.831	30.091	—0.06	79.4	46.9	75.3	50.4	62.8	+1.0	72	—	0.6	—	Nil	
		Arrah	29.979	29.752	29.871	30.081	—0.010	79.9	46.6	76.0	49.7†	62.9†	+1.6	77	—	0.6	—	Nil	
	Gya	Gya	29.771	29.585	29.691	30.096	—0.024	80.9	48.3	76.9	52.2	64.6	+1.3	65	+1	1.2	—0.5	Nil	
SOUTH-WEST BENGAL.	Patna	Bankipore	29.965	29.766	29.861	30.097	—0.038	79.8	47.8	75.7	51.9	63.8	+1.4	73	—3	0.7	—1.0	Nil	
	South Bhagulpore and Monghyr.	Bhagulpore	29.966	29.770	29.882	30.054	—0.043	80.3	48.0	77.0	51.2	64.1	+1.7	83	—	0.4	—	Nil	
	South Bhagulpore and Monghyr.	Naya Dooanka	29.927	29.453	29.647	30.079	—	78.9	47.1	76.0	53.2	64.1	—	79	—	0.2	—	Nil	
SOUTH-WEST BENGAL.	Hazaribagh	Hazaribagh	28.974	27.964	27.997	30.100	—0.027	76.1	46.8	73.1	50.9	62.0	+1.2	64	—2	1.6	—0.3	Nil	
	Leharlogga Manbhoom	Ranchee	27.930	27.775	27.862	30.085	—0.026	77.0	45.7	73.1	49.1	61.1	+0.9	67	—	2.1	—	Nil	
	Singbhoom	Chyebassam	29.369	29.168	29.263	30.090	—	81.0	46.9	78.0	52.2	63.1	—	75	—	1.2	—	Nil	
SOUTH-WEST BENGAL.	Assam	Sibsagar	29.844	29.624	29.769	30.123	—0.007	78.5	45.6	73.5	54.2	63.9	+2.7	69	+2	6.9	+2.6	0.33	
		Dhubri	30.037	29.829	29.935	30.066	—0.048	79.5	52.2	76.2	58.1	67.1	+1.7	89	+1	1.0	—0.3	Nil	
		Silchar	30.029	29.820	29.923	30.044	—0.029	84.0	52.9	81.4	57.7	69.0	+2.3	90	+5	4.5	+0.9	Nil	

* Means of 23 days.

† " " 29 " "

‡ " " 30 " "

Bengal for the month of December 1889.

DISTRICT OBSERVATIONS.										Representative stations.	DISTRICT.	METEOROLOGICAL DIVISION.
RAINFALL.												
Of month.					Since 15th May 1889.							
Mean of district.	Normal mean.	Variation from mean.	Number of rainy days.	Normal mean number of rainy days.	Mean of district.	Normal mean.	Variation.	Mean number of rainy days.	Normal mean number of rainy days.			
0.35	0.80	-0.51	1.5	1.5	74.88	55.32	+19.56	96.0	82.3	Poorree Gopalpore False Point	Poorree	ORISSA
0.05	0.00	-0.55	0.3	1.3	66.24	51.62	+14.62	92.9	78.7	Cuttack	Cuttack	
0.02	0.31	-0.29	0.3	0.7	49.89	52.87	-2.98	83.1	70.2	Balasore	Balasore	
0.04	0.24	-0.30	1.0	0.8	58.43	61.94	-3.51	90.5	84.6	Saugor Island	South-West Midnapore and South 24-Pergunnahs.	SOUTH-WEST BENGAL.
Nil	0.31	-0.31	0.0	0.6	46.29	51.07	-4.78	85.4	71.1	Midnapore	Midnapore	
Nil	0.30	-0.30	0.0	0.8	53.38	51.16	+2.22	91.0	89.0	Calcutta	24-Pergunnahs, Howrah, and Hooghly.	
Nil	0.19	-0.19	0.0	0.5	45.83	46.22	-0.49	85.5	74.8	Burdwan	Burdwan	SOUTH-WEST BENGAL.
Nil	0.31	-0.31	0.0	0.6	55.88	51.87	+4.01	82.4	81.2	Bankoora	Bankoora	
Nil	0.15	-0.15	0.0	0.8	52.44	51.17	+1.27	84.5	82.4	Ranigunge	West Burdwan and Beerbhoom.	
Nil	0.17	-0.17	0.0	0.6	51.15	50.10	+1.05	81.9	78.0	Berhampore	Moorshedabad	SOUTH-WEST BENGAL.
Nil	0.18	-0.18	0.0	0.4	51.40	48.79	+2.70	87.2	77.1	Krishnagore	Nuddes	
0.06	0.26	-0.20	0.8	0.6	53.59	52.72	+0.87	95.5	83.0	Jessore	Jessore and Khoolna	
0.42	0.54	-0.12	1.5	0.9	100.02	113.68	-13.66	111.0	106.6	Chittagong	Chittagong	EAST BENGAL.
0.08	0.58	-0.50	1.5	1.4	65.13	80.93	-15.80	98.0	113.0	Demagiri	Chittagong Hill Tracts	
0.24	0.40	-0.16	1.0	0.9	77.32	76.30	+1.02	101.9	104.5	Barrisal	Backergunge	
0.26	0.75	-0.49	1.5	1.6	90.29	106.41	-16.12	110.5	106.3	Noakholly	Noakholly	EAST BENGAL.
0.02	0.14	-0.12	0.3	0.3	60.32	55.27	+5.05	83.2	85.5	Furreedpore	Furreedpore	
Nil	0.26	-0.26	0.0	0.8	74.09	69.18	+4.91	105.0	89.8	Dacca	Dacca	EAST BENGAL.
0.02	0.38	-0.36	0.3	0.8	55.45	68.66	-13.21	93.1	95.2	Commillah	Tipperah	
Nil	0.22	-0.22	0.0	0.6	67.63	66.93	+0.70	105.2	87.8	Mymensingh	Mymensingh	EAST BENGAL.
0.01	0.17	-0.16	0.1	0.6	64.81	56.80	+7.95	101.7	76.7	Bogra	Bogra	
0.08	0.14	-0.06	1.0	0.7	55.07	52.95	+2.12	102.0	79.9	Serajgunge	Pubna	EAST BENGAL.
Nil	0.11	-0.11	0.0	0.5	54.30	53.38	+0.92	89.6	76.1	Rampore Beau-leah.	Rajshahye	
Nil	0.13	-0.13	0.0	0.6	39.76	53.73	-13.97	73.5	82.2	Maldah	Maldah	NORTH BENGAL.
Nil	0.19	-0.19	0.0	0.6	57.37	57.02	+0.35	82.9	76.9	Dinapore	Dinapore	
Nil	0.16	-0.16	0.0	0.3	85.16	73.35	+11.81	85.4	75.6	Rungpore	Rungpore	
Nil	0.18	-0.18	0.0	0.7	117.43	110.79	+6.64	103.0	95.8	Julpigoree	Julpigoree and Cooch Behar.	NORTH BENGAL.
Nil	0.33	-0.33	0.0	1.2	133.75	120.49	+13.26	122.8	111.0	Darjeeling	Darjeeling Hill Tracts.	
Nil	0.12	-0.12	0.0	0.5	74.71	58.18	+16.53	75.0	68.9	Purneah	Purneah and North Bhagulpore.	NORTH BENGAL.
Nil	0.12	-0.12	0.0	0.5	48.66	42.88	+5.78	66.8	56.2	Mozufferpore	Mozufferpore	
Nil	0.11	-0.11	0.0	0.5	51.84	44.08	+7.76	65.7	56.5	Durbhunga	Durbhunga	NORTH BENGAL.
Nil	0.21	-0.21	0.0	0.7	63.55	46.12	+17.43	64.5	52.8	Motihari	Chumpanan	
Nil	0.17	-0.17	0.0	0.6	40.13	42.31	-2.18	58.4	56.1	Chupra	Saran	SOUTH BENGAL.
Nil	0.28	-0.38	0.0	0.7	40.07	39.39	+0.68	68.4	59.1	Dehree Buxar Arrah	Shahabad	
Nil	0.26	-0.26	0.0	0.6	37.07	40.07	-3.00	63.8	55.8	Gya	Gya	SOUTH BENGAL.
Nil	0.16	-0.16	0.0	0.5	43.40	40.75	+2.74	62.9	60.5	Bankipore	Patna	
Nil	0.10	-0.10	0.0	0.4	42.43	42.61	-0.18	60.4	64.6	Bhagulpore	South Bhagulpore and Monghyr.	SOUTH BENGAL.
Nil	0.14	-0.14	0.0	0.5	54.15	50.42	+3.73	83.1	74.8	Naya Doonka	Southal Pergunnahs	
Nil	0.31	-0.31	0.0	0.6	43.03	49.80	-6.83	85.3	79.6	Hazaribagh	Hazaribagh	SOUTH BENGAL.
Nil	0.45	-0.45	0.0	0.9	44.34	48.29	-3.95	82.1	83.8	Ranchee	Lohardugga	
Nil	0.22	-0.22	0.0	0.7	38.33	46.44	-8.11	96.3	82.4		Manbhooni	SOUTH BENGAL.
Nil	0.37	-0.27	0.0	1.3	48.76	59.85	-2.09	100.0	90.5	Chyobassa	Singbhooni	
										Sibsagar Jambui Silchar	Assam	ASSAM.

in Bengal in December 1889.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Highest rainfall during the month.	Total rainfall from 1st January 1888 up to 31st Dec. 1889.	Average rainfall from 1st January up to 31st December.	Station.	District.	Meteorological division.
...	0'08	0'04	0'09	...	...	...	...	...	3	1'4	0'21	0'73	0'69	80'80	54'08	Pooree ...	Pooree	ORISSA.
...	Nil	1'6	Nil	0'59	Nil	76'86	59'31	Khurda.	...	...
...	1	1'7	0'14	1'29	0'14	66'92	52'85	Banpur.	...	...
...	2	1'2	1'04	0'64	0'63	80'32	60'44	False Point.	...	...
...	Nil	?	Nil	?	Nil	?	?	Gop.	...	...
...	Nil	?	Nil	?	Nil	?	?	Pipili.	...	...
...	Nil	1'0	Nil	0'39	Nil	56'40	51'95	Jagatsingapore.	Cuttack.	...
...	Nil	1'2	Nil	0'81	Nil	54'03	52'31	Banki.	...	...
...	Nil	1'4	Nil	0'48	Nil	75'37	58'08	Cuttack.	...	...
...	1	1'0	0'23	0'48	0'26	74'18	57'10	Kendrapara.	...	...
...	Nil	1'0	Nil	0'71	Nil	59'83	60'00	Jajpore.	...	...
...	Nil	?	Nil	?	Nil	61'25	?	Dharmata.	...	...
...	Nil	?	Nil	?	Nil	74'07	?	Salipore.	...	...
...	1	0'9	0'13	0'58	0'12	57'54	58'80	Chandbali.	Balasore.	...
...	Nil	0'7	Nil	0'37	Nil	60'45	58'53	Bhuddruck.	...	...
...	Nil	0'5	Nil	0'18	Nil	40'64	56'88	Sorah.	...	...
...	Nil	0'9	Nil	0'24	Nil	50'07	66'74	Balasore.	...	...
...	Nil	0'3	Nil	0'11	Nil	40'73	57'29	Jullasore.	...	...
...	Nil	0'8	Nil	0'22	Nil	60'51	60'17	Baripodah.	...	...
...	1	0'7	0'05	0'34	0'05	57'07	68'93	Contai.	Midnapore.	SOUTH-WEST BENGAL.
...	1	1'1	0'03	0'29	0'03	58'25	74'21	Saugor Island.	...	...
...	Nil	0'5	Nil	0'25	Nil	52'50	58'45	Tumlook.	...	...
...	Nil	0'8	Nil	0'28	Nil	55'08	52'58	Midnapore.	...	...
...	Nil	0'8	Nil	0'27	Nil	46'28	62'18	Ghatol.	...	...
...	Nil	?	Nil	?	Nil	62'97	?	Kakrahaty.	...	...
...	Nil	?	Nil	?	Nil	67'05	?	Heria.	...	...
...	Nil	?	Nil	?	Nil	57'99	?	Thaguanpore.	...	...
...	Nil	?	Nil	0'21	Nil	47'77	57'46	Garbeta.	...	...
...	1	0'7	0'04	0'27	0'04	66'59	66'06	Diamond Har-	24-Pergunnahs.	...
...	1	?	0'17	?	0'17	60'88	?	bours.	...	...
...	Nil	0'9	Nil	0'33	Nil	58'28	63'30	Canning Town.	...	...
...	Nil	0'6	Nil	0'30	Nil	54'55	54'03	Alipore Jail.	...	...
...	Nil	0'8	Nil	0'30	Nil	69'12	39'99	Barrackpore.	...	...
...	Nil	0'8	Nil	0'29	Nil	61'40	58'80	Dum-Dum.	...	...
...	Nil	0'6	Nil	0'22	Nil	63'56	62'44	Haraset.	...	...
...	Nil	1'1	Nil	0'27	Nil	64'11	61'36	Buseerhat.	...	...
...	Nil	1'0	Nil	0'30	Nil	60'27	60'06	Howrah.	Howrah.	...
...	Nil	0'8	Nil	0'27	Nil	58'42	58'29	Moheerka	...	...
...	Nil	0'7	Nil	0'26	Nil	40'40	50'80	(Ooloberiah).	...	...
...	1	0'7	0'03	0'19	0'03	45'03	62'54	Hooghly.	Hooghly.	...
...	Nil	0'3	Nil	0'21	Nil	43'77	52'85	Serampore.	...	...
...	Nil	0'9	Nil	0'17	Nil	49'31	57'19	Hooghly.	...	...
...	Nil	0'3	Nil	0'10	Nil	45'08	55'30	Cutwa.	...	...
...	Nil	0'7	Nil	0'12	Nil	58'26	53'06	Raneegunge.	...	...
...	Nil	?	Nil	?	Nil	56'74	?	Mankur.	...	...
...	Nil	0'8	Nil	0'17	Nil	53'74	56'41	Bankura.	Bankura.	...
...	Nil	0'6	Nil	0'26	Nil	62'54	58'23	Bishenpore.	...	...
...	Nil	0'5	Nil	0'25	Nil	55'51	55'51	Mahara.	...	...
...	Nil	0'5	Nil	0'46	Nil	68'36	61'18	Khatra.	...	...
...	Nil	?	Nil	?	Nil	48'75	?	Indas.	...	...
...	Nil	?	Nil	?	Nil	52'94	?	Kotalpore.	...	...
...	Nil	?	Nil	?	Nil	42'47	?	Anda.	...	...
...	Nil	?	Nil	?	Nil	61'51	?	Gangajalhati.	...	...
...	Nil	?	Nil	0'22	Nil	60'39	57'40	Raipur.	...	...
...	Nil	?	Nil	?	Nil	58'02	?	Sonamukhi.	...	...
...	Nil	0'8	Nil	0'16	Nil	61'85	55'88	Bh. Soory.	Boorboom.	...
...	Nil	0'6	Nil	0'12	Nil	40'83	54'08	Hetampore.	...	...
...	Nil	0'9	Nil	0'18	Nil	52'92	56'45	Rampore Haul.	...	...
...	Nil	?	Nil	?	Nil	57'82	?	Baipur.	...	...
...	Nil	?	Nil	?	Nil	53'30	?	Mararai.	...	...
...	Nil	0'3	Nil	0'22	Nil	60'55	55'47	Ranaghat.	Nudda.	...
...	Nil	0'4	Nil	0'15	Nil	45'48	55'65	Kishnaghat.	...	...
...	Nil	0'5	Nil	0'15	Nil	53'90	60'37	Choodanga.	...	...
...	Nil	0'3	Nil	0'18	Nil	67'59	56'28	Meherpore.	...	...
...	Nil	0'5	Nil	0'19	Nil	50'44	62'11	Kooshtea.	...	...
...	1	0'6	0'01	0'34	0'01	57'00	64'49	Satkshira.	Khoolna.	...
...	1	0'7	0'31	0'27	0'31	69'10	60'86	Bagirhat.	...	...
...	1	1'7	0'18	0'32	0'18	59'86	64'79	Khoolna.	...	...
...	1	?	0'30	?	0'30	?	?	Nakipur.	...	...
...	Nil	0'7	Nil	0'23	Nil	54'75	54'05	Narail.	Jessore.	...
...	Nil	0'6	Nil	0'19	Nil	60'75	67'61	Jhenidah.	...	...
...	Nil	0'5	Nil	0'17	Nil	56'71	62'09	Magorah.	...	...
...	Nil	0'6	Nil	0'16	Nil	61'89	59'72	Bongorah.	...	...
...	Nil	0'3	Nil	0'34	Nil	48'75	59'47	Bongorah.	...	...
...	Nil	0'6	Nil	0'25	Nil	57'07	55'27	Kandi.	Moorshedabad.	...
...	Nil	0'6	Nil	0'12	Nil	48'07	55'30	Berhampore.	...	...
...	Nil	0'4	Nil	0'10	Nil	50'09	55'22	Lalbagh.	...	...
...	Nil	0'4	Nil	0'12	Nil	?	55'35	Azimungo.	...	...
...	Nil	0'8	Nil	0'14	Nil	60'00	53'40	Jungipore.	...	...
...	Nil	0'5	Nil	0'14	Nil	63'56	64'84	Lalgola.	...	...
...	Nil	?	Nil	?	Nil	47'49	?	Jalgaunge.	...	...
...	Nil	?	Nil	?	Nil	46'68	?	Akhirganj.	...	...
...	Nil	?	Nil	?	Nil	?	?	Patkabari.	...	...
...	1	0'9	0'13	0'30	0'13	129'65	132'94	Cox's Bazar.	Chittagong.	EAST BENGAL.
...	2	0'9	0'71	0'57	0'37	84'40	105'07	Chittagong.	...	...
...	2	?	0'05	?	0'05	115'44	?	Kutubdia.	...	...
...	1	?	0'10	?	0'10	64'62	?	Satkanya.	...	...
...	1	1'0	0'40	0'53	0'40	71'38	95'07	Rangamati.	Chittagong Hill Tracts.	...
...	2	1'8	0'95	0'55	0'79	71'74	89'92	Ruma.	...	...

Table of Rainfall recorded at Stations

Meteorological division.	District.	Station.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
EAST BENGAL —contd.	Backergunge...	Patuakhally...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Parazepore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Burisal...
		Bhola...
		Gournaddi...
	Noakhally...	Bauphal...
		Noakhally...
		Fenny...
		Harishpore... Kamganj...
	Furreedpore...	Madaripore...
		Furreedpore... Goalundo...
	Dacca...	Munshigunge...
		Dacca...
		Narainkunge...
		Manickkunge... Joydebpore...
	Hill Tipperah...	Agartola...
		Tipperah...	Comilla...
	Chandpore...	
	Brahmunberia...	
	Ramchandrapore... Nasiragar...	
Daudkandi... Kasba... Laksham...	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mymensingh...	Kishoregunge...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atia (Tangail)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Mymensingh...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Jamailpore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Netrokona...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Subornakhally... Jurgapore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sherpore Tuna... Dewanganj...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	NORTH BENGAL	Pabna...	Pabna...
			Seragunge...
		Roxra...	Sherpore...
Nowkhilla...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rogra...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Panchbibi...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajshahye...		Beaulah...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Natore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Naogaon...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Lalpara... Manda...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maldah...	Maldah...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chanchal...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gajol... Sibganj...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dinagore...	Mohadebpore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Churamon...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Raigunge...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinagore... Balookhat... Thakurgaon...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangpur...	Bhawaniganj... (Gyandaha)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rangpur...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kurigram...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Bagdagra... (Nilphamari)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Julpigore...	Ulipore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Julpigore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Alipore Doar... Palacotta...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deliganj... Rhogulpore... (Nagrakatta)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cooch Behar...	Dinmatta...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Cooch Behar... Mickligunge... Matabhanga...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Darjeeling Hill...	Buxa...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Siliguri...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Darjeeling...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kalimpong... Kurseong...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
NORTH BENGAL	Purneah...	Kisengunge...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Arraiah...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Purneah...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Gondwara...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	North Bhamal...	Belarampore...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kaliari...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kaliaganj...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Zadospore... Sanpool... Protaganj...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

in Bengal in December 1889—continued.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Heaviest rainfall during the month.	Total rainfall from 1st January 1889 up to 31st December 1889.	Average rainfall from 1st January up to 31st December.	Station.	District.	Meteorological division.
...	0.05	...	...	...	...	...	1	0.9	0.05	0.45	0.05	91.44	97.21	Patunghally	Backergunge.	EAST BENGAL— concid.
...	0.20	...	...	...	...	...	1	0.7	0.20	0.20	0.20	76.52	78.00	Perozepore.		
...	0.44	...	...	...	...	...	1	1.0	0.44	0.25	0.44	77.25	79.30	Burrisal.		
...	0.27	...	...	...	...	...	1	1.1	0.27	0.47	0.27	83.54	91.00	Bhola.		
...	Nil	?	Nil	?	Nil	63.68	?	Gournaddi.		
...	0.35	...	...	...	...	...	1	?	0.35	?	0.35	97.09	?	Bauphal.		
...	2	0.9	0.12	0.37	0.12	109.65	112.38	Noakhally	Noakhally.	
...	0.12	...	...	...	...	...	2	1.0	0.40	0.24	0.35	80.80	121.67	Fenny.		
...	0.35	...	...	...	...	...	1	?	0.39	?	0.39	84.96	?	Harishpore.		
...	0.39	...	...	...	...	...	Nil	?	Nil	?	Nil	92.25	?	Ramganj.		
...	1	0.3	0.06	0.13	0.06	64.51	67.09	Madaripore	Furzedpore.	
...	0.06	...	...	...	...	...	Nil	0.7	Nil	0.12	Nil	69.80	68.05	Furzedpore.		
...	Nil	0.5	Nil	0.13	Nil	65.19	62.28	Goalundo.		
...	Nil	0.6	Nil	0.31	Nil	83.00	85.44	Munahigunge.	Dacca.	
...	Nil	0.8	Nil	0.21	Nil	80.28	72.97	Dacca.		
...	Nil	1.0	Nil	0.34	Nil	88.49	73.44	Narainigunge.		
...	Nil	0.7	Nil	0.12	Nil	73.11	61.72	Manikagunge.		
...	Nil	?	Nil	?	Nil	78.45	?	Joydebpore.		
...	Nil	0.7	Nil	0.20	Nil	56.46	78.61	Agartola	Hill Tipperah.	
...	1	0.9	0.08	0.25	0.08	73.15	92.65	Comilla	Tipperah.	
...	0.08	...	...	...	...	...	Nil	0.9	Nil	0.40	Nil	70.91	99.33	Chandpore.		
...	Nil	0.7	Nil	0.26	Nil	61.67	79.09	Brahmanbaria.		
...	Nil	?	Nil	?	Nil	66.72	?	Ramchandrapore.		
...	Nil	?	Nil	?	Nil	29.78	?	Nasirnagar.		
...	Nil	?	Nil	?	Nil	57.19	?	Daudkandi.		
...	Nil	?	Nil	?	Nil	71.46	?	Kasba.		
...	Nil	?	Nil	?	Nil	75.45	?	Laksham.		
...	Nil	0.7	Nil	0.20	Nil	81.88	82.34	Kishoregunge.	Mymensingh.	
...	0.02	...	...	...	...	...	1	0.4	0.02	0.02	0.02	70.26	64.01	Atia (Taung).		
...	Nil	0.9	Nil	0.12	Nil	105.55	92.69	Mymensingh.		
...	Nil	0.6	Nil	0.26	Nil	89.60	75.87	Jamulpore.		
...	Nil	0.6	Nil	0.17	Nil	137.71	86.60	Netrokona.		
...	Nil	?	Nil	?	Nil	63.03	?	Subornahally.		
...	Nil	?	Nil	?	Nil	162.03	?	Durgapore.		
...	Nil	?	Nil	?	Nil	94.53	?	Sherepore Town.		
...	Nil	?	Nil	?	Nil	?	?	Dewanganj.		
...	1	0.7	0.04	0.11	0.04	55.71	64.20	Pubna	Pubna	NORTH BENGAL.
...	0.04	...	...	...	...	...	1	0.6	0.13	0.13	0.13	64.46	60.95	Serajgunge.		
...	Nil	0.8	Nil	0.22	Nil	60.47	64.17	Sherpore	Bogra.	
...	Nil	0.8	Nil	0.16	Nil	66.31	61.90	Nowkhilla.		
...	0.03	...	...	...	...	...	1	0.5	0.03	0.12	0.03	73.25	74.60	Bogra.		
...	Nil	0.4	Nil	0.18	Nil	68.74	60.49	Panchbibi.		
...	Nil	0.7	Nil	0.08	Nil	59.28	58.44	Beaulah	Rajshahye.	
...	Nil	0.3	Nil	0.11	Nil	63.41	62.24	Natore.		
...	Nil	?	Nil	?	Nil	62.29	?	Naggaon.		
...	Nil	?	Nil	?	Nil	49.67	?	Lalpara.		
...	Nil	?	Nil	?	Nil	46.47	?	Manda.		
...	Nil	0.6	Nil	0.33	Nil	54.80	53.83	Maldah	Maldah.	
...	Nil	0.5	Nil	0.07	Nil	51.82	58.75	Chanchal.		
...	Nil	?	Nil	?	Nil	43.33	?	Gajol.		
...	Nil	?	Nil	?	Nil	53.21	?	Sitaganj.		
...	Nil	0.5	Nil	0.17	Nil	67.43	60.48	Mohadehpore	Dinagore.	
...	Nil	0.6	Nil	0.15	Nil	56.64	56.64	Churamon.		
...	Nil	0.7	Nil	0.14	Nil	56.64	62.33	Raigunge.		
...	Nil	0.6	Nil	0.10	Nil	70.83	74.54	Dinagore.		
...	Nil	0.4	Nil	0.25	Nil	64.74	63.13	Balorghat.		
...	Nil	?	Nil	?	Nil	91.69	?	Thakurgaon.		
...	Nil	0.3	Nil	0.16	Nil	92.98	69.83	Bhawanigunge	Rungpore.	
...	Nil	0.5	Nil	0.12	Nil	81.45	83.76	(Gyabanda).		
...	Nil	0.5	Nil	0.23	Nil	98.50	86.70	Rungpore.		
...	Nil	0.6	Nil	0.19	Nil	94.86	90.57	Kurigram.		
...	Nil	?	Nil	?	Nil	84.86	?	Baidogra.		
...	Nil	?	Nil	?	Nil	?	?	(Niphamari.)		
...	Nil	?	Nil	?	Nil	?	?	Ulipore.		
...	Nil	0.4	Nil	0.08	Nil	128.80	128.28	Julpigoree	Julpigoree.	
...	Nil	?	Nil	?	Nil	153.28	?	Alipore Dear.		
...	Nil	?	Nil	?	Nil	138.83	?	Falacolla.		
...	Nil	?	Nil	?	Nil	96.41	?	Debaganj.		
...	Nil	?	Nil	?	Nil	149.62	?	Bhagulpore		
...	Nil	?	Nil	?	Nil	?	?	(Nagrakatta.)		
...	Nil	0.9	Nil	0.19	Nil	166.41	110.84	Dinukta.		
...	Nil	0.7	Nil	0.16	Nil	136.35	129.80	Cooch Behar.	Cooch Behar.	
...	Nil	0.7	Nil	0.16	Nil	128.07	117.83	Mickligunge.		
...	Nil	0.8	Nil	0.12	Nil	120.70	124.35	Matanunga.		
...	Nil	2.0	Nil	0.57	Nil	211.45	213.27	Buxa	Darjeeling.	
...	1	1.0	0.01	0.11	0.01	128.45	106.68	Saiguri.		
...	Nil	0.8	Nil	0.21	Nil	138.84	120.61	Darjeeling.		
...	Nil	1.0	Nil	0.30	Nil	102.31	88.90	Kalimpong.		
...	Nil	?	Nil	?	Nil	?	?	Kurseong.		
...	Nil	0.6	Nil	0.14	Nil	105.02	74.73	Kisengunge	Purneah	NORTH BENGAL.
...	Nil	0.2	Nil	0.09	Nil	82.16	68.36	Arracan.		
...	Nil	0.6	Nil	0.15	Nil	66.41	64.16	Purneah.		
...	Nil	?	Nil	?	Nil	?	?	Gondwara.		
...	Nil	?	Nil	?	Nil	?	?	Nalgrampore		
...	Nil	?	Nil	?	Nil	?	?	Malaria.		
...	Nil	?	Nil	?	Nil	?	?	Kuliganj.		
...	Nil	0.4	Nil	0.08	Nil	63.20	53.71	Madadapore	North Bhagalpore	
...	Nil	0.5	Nil	0.12	Nil	71.64	50.60	Soopool.		
...	Nil	?	Nil	?	Nil	91.21	?	Pratabganj.		

Table of Rainfall recorded at Stations in

[illegible]

Bengal for the month of December 1889—concluded.

21	22	23	24	25	26	27	28	29	30	31	Number of rainy days.	Average number of rainy days.	Total rainfall for the month.	Average rainfall for the month.	Highest rainfall during the month.	Total rainfall from 1st January 1889 up to 31st Dec. 1889.	Average rainfall from 1st January up to 31st December.	Station.	District.	Meteorological division.
...	Nil	0.4	Nil	0.08	Nil	48.39	45.28	Tajpore ...	Durbhanga ...	NORTH BEHAR
...	Nil	0.5	Nil	0.07	Nil	54.01	47.93	Durbhanga ...	Durbhanga ...	—concl.
...	Nil	0.5	Nil	0.07	Nil	66.71	47.85	Madhubani ...	Madhubani ...	
...	Nil	?	Nil	?	Nil	74.47	?	Bahera ...	Bahera ...	
...	Nil	?	Nil	?	Nil	60.07	?	Roshera ...	Roshera ...	
...	Nil	0.6	Nil	0.12	Nil	59.56	45.56	Sitamarhi ...	Muzaffarpore ...	
...	Nil	0.6	Nil	0.12	Nil	53.56	43.99	Muzaffarpore ...	Muzaffarpore ...	
...	Nil	0.6	Nil	0.12	Nil	46.45	44.22	Hajipore ...	Hajipore ...	
...	Nil	?	Nil	?	Nil	?	?	Paru ...	Paru ...	
...	Nil	?	Nil	?	Nil	?	?	Makha ...	Makha ...	
...	Nil	?	Nil	?	Nil	?	?	Sinhar ...	Sinhar ...	
...	Nil	?	Nil	?	Nil	50.00	?	Pupri ...	Pupri ...	
...	Nil	0.8	Nil	0.15	Nil	78.08	48.26	Motihari ...	Champaran ...	
...	Nil	0.5	Nil	0.23	Nil	56.25	51.27	Bettiah ...	Bettiah ...	
...	Nil	?	Nil	?	Nil	71.09	?	Bogaha ...	Bogaha ...	
...	Nil	?	Nil	?	Nil	56.21	?	Burhura ...	Burhura ...	
...	Nil	0.6	Nil	0.17	Nil	40.82	46.26	Gopalgunge ...	Sarun ...	
...	Nil	0.7	Nil	0.14	Nil	45.06	45.65	Sewan ...	Sewan ...	
...	Nil	0.7	Nil	0.09	Nil	44.30	39.65	Chuprah ...	Chuprah ...	
...	Nil	0.9	Nil	0.21	Nil	50.03	39.40	Buxar ...	Shahabad ...	SOUTH BEHAR.
...	Nil	1.0	Nil	0.66	Nil	45.31	41.20	Dehra ...	Dehra ...	
...	Nil	0.4	Nil	0.35	Nil	40.21	43.08	Bhutocah ...	Bhutocah ...	
...	Nil	0.5	Nil	0.28	Nil	31.79	42.35	Sasseram ...	Sasseram ...	
...	Nil	0.6	Nil	0.14	Nil	45.59	44.95	Arrah ...	Arrah ...	
...	Nil	?	Nil	?	Nil	?	?	Mohanish ...	Mohanish ...	
...	Nil	0.7	Nil	0.36	Nil	37.38	44.15	Aurangabad ...	Gya ...	
...	Nil	0.7	Nil	0.19	Nil	44.50	41.19	Gya ...	Gya ...	
...	Nil	0.6	Nil	0.22	Nil	42.02	42.29	Nowadah ...	Nowadah ...	
...	Nil	0.4	Nil	0.18	Nil	37.23	42.81	Jehanabad ...	Jehanabad ...	
...	Nil	?	Nil	?	Nil	37.43	?	Arwal ...	Arwal ...	
...	Nil	?	Nil	?	Nil	27.24	?	Daudnagar ...	Daudnagar ...	
...	Nil	?	Nil	?	Nil	31.50	?	Sheerghati ...	Sheerghati ...	
...	Nil	?	Nil	?	Nil	18.27	?	Rajauli ...	Rajauli ...	
...	Nil	?	Nil	?	Nil	33.75	?	Pakri Bara ...	Pakri Bara ...	
...	Nil	0.7	Nil	0.16	Nil	55.38	41.90	Patna ...	Patna ...	
...	Nil	0.6	Nil	0.18	Nil	49.07	42.50	Dinapore ...	Dinapore ...	
...	Nil	0.4	Nil	0.13	Nil	45.65	44.28	Behar ...	Behar ...	
...	Nil	0.3	Nil	0.12	Nil	41.87	42.37	Barrh ...	Barrh ...	
...	Nil	?	Nil	?	Nil	45.33	?	Bickram ...	Bickram ...	
...	Nil	?	Nil	?	Nil	39.26	?	Hilsa ...	Hilsa ...	
...	Nil	0.3	Nil	0.08	Nil	53.28	42.45	Begoozerai ...	Monghyr ...	
...	Nil	0.4	Nil	0.10	Nil	44.09	45.73	Monghyr ...	Monghyr ...	
...	Nil	0.4	Nil	0.09	Nil	43.17	45.16	Jamui ...	Jamui ...	
...	Nil	?	Nil	?	Nil	65.36	?	Gogri ...	Gogri ...	
...	Nil	?	Nil	?	Nil	45.87	?	Sheikpura ...	Sheikpura ...	
...	Nil	0.4	Nil	0.09	Nil	48.79	47.70	Bhagulpore ...	South Bhagulpore ...	
...	Nil	0.5	Nil	0.14	Nil	42.47	45.78	Banka ...	Banka ...	
...	Nil	?	Nil	?	Nil	50.43	?	Kolgong ...	Kolgong ...	
...	Nil	?	Nil	?	Nil	?	?	Bangson ...	Bangson ...	
...	Nil	0.3	Nil	0.06	Nil	63.06	55.69	Rajmehal ...	Southal Pergunnah ...	
...	Nil	0.4	Nil	0.12	Nil	55.57	47.89	Godd ...	Godd ...	
...	Nil	0.5	Nil	0.15	Nil	77.04	60.22	Pakour ...	Pakour ...	
...	Nil	0.8	Nil	0.23	Nil	60.69	57.39	Nya Donmka ...	Nya Donmka ...	
...	Nil	0.4	Nil	0.16	Nil	43.51	52.89	Deochur ...	Deochur ...	
...	Nil	0.4	Nil	0.14	Nil	47.63	51.70	Jamtara ...	Jamtara ...	
...	Nil	?	Nil	?	Nil	61.28	?	Mahagams ...	Mahagams ...	
...	Nil	?	Nil	?	Nil	?	?	Nanikat ...	Nanikat ...	
...	Nil	0.6	Nil	0.17	Nil	43.01	50.93	Pachamba ...	Hazaribagh ...	CHOTA NAGPUR.
...	Nil	1.0	Nil	0.23	Nil	51.86	49.79	(Girdi) ...	(Girdi) ...	
...	Nil	0.6	Nil	0.32	Nil	39.50	45.22	Hazaribagh ...	Hazaribagh ...	
...	Nil	0.4	Nil	0.30	Nil	?	50.41	Semtaurah ...	Semtaurah ...	
...	Nil	0.4	Nil	0.33	Nil	45.75	64.64	Mahadi Hills ...	Mahadi Hills ...	
...	Nil	?	Nil	?	Nil	33.10	?	Jhoomrah Hills ...	Jhoomrah Hills ...	
...	Nil	?	Nil	?	Nil	50.59	?	Barhi ...	Barhi ...	
...	Nil	?	Nil	?	Nil	42.12	?	Chatra ...	Chatra ...	
...	Nil	?	Nil	?	Nil	?	?	Karagdeha ...	Karagdeha ...	
...	Nil	?	Nil	?	Nil	?	?	Kamghar ...	Kamghar ...	
...	Nil	1.3	Nil	0.61	Nil	48.99	52.32	Lohardugga ...	Lohardugga ...	
...	Nil	0.6	Nil	0.21	Nil	55.43	50.16	Ranchi ...	Ranchi ...	
...	Nil	0.8	Nil	0.28	Nil	36.56	45.73	Palamow ...	Palamow ...	
...	Nil	?	Nil	?	Nil	?	?	Silli ...	Silli ...	
...	Nil	?	Nil	?	Nil	?	?	Balumat ...	Balumat ...	
...	Nil	?	Nil	?	Nil	?	?	Hosainabad ...	Hosainabad ...	
...	Nil	?	Nil	?	Nil	?	?	Garwah ...	Garwah ...	
...	Nil	1.3	Nil	0.53	Nil	50.81	54.98	Chyebassa ...	Singbhoom ...	
...	Nil	?	Nil	?	Nil	42.37	?	Chakradhar ...	Chakradhar ...	
...	Nil	?	Nil	?	Nil	60.44	?	Ghatila ...	Ghatila ...	
...	Nil	?	Nil	?	Nil	57.57	?	Baharagura ...	Baharagura ...	
...	Nil	0.9	Nil	0.26	Nil	46.40	50.83	Purulia ...	Manbhoom ...	
...	Nil	0.6	Nil	0.19	Nil	35.12	47.35	Gobindpore ...	Gobindpore ...	
...	Nil	?	Nil	?	Nil	48.98	?	Raghunath ...	Raghunath ...	
...	Nil	?	Nil	?	Nil	47.33	?	Barabhoom ...	Barabhoom ...	
...	Nil	?	Nil	?	Nil	?	?	Jhalda ...	Jhalda ...	
...	Nil	?	Nil	?	Nil	?	?	Chas ...	Chas ...	

**SUMMARY OF THE RAINFALL AND METEOROLOGICAL OBSERVATIONS
TAKEN IN BENGAL, AND OF THE METEOROLOGICAL OBSERVATIONS
TAKEN IN ASSAM, DURING THE MONTH OF DECEMBER 1889.**

THE normal meteorology in December of Bengal and Assam is usually very simple, and the north-east monsoon conditions are almost always present in a well-marked degree. Temperature generally steadily diminishes, and is decidedly low, while pressure increases and becomes very high; humidity remains low, and there is an almost complete absence of cloud. Rainfall is also usually entirely absent from the province, except when the normal conditions become almost reversed by the occurrence of barometric disturbances which appear over Northern India, and drift in a southerly or south-easterly direction. When such depressions pass through the province, the sky becomes heavily clouded, temperature usually increases, particularly at night, while pressure falls with the advance of the depression. If the depression is at all considerable, general light rain will also usually fall. It is from such actions as these that practically the whole of the rainfall of December in Bengal is in most years received, and from the nature of the case the occurrence of any rainfall at all in this month is uncertain, while its amount is always liable to considerable variation. A second class of disturbances may occur in the form of cyclonic storms in the Bay; but usually in December such storms are generated in the extreme south of the Bay, and they are rarely sufficiently large and intense to affect the weather in Bengal to any considerable extent. If, however, such a storm should happen to advance in a north-westerly direction into the northern half of the Bay, then again the normal weather conditions in Bengal will be practically reversed and will become similar to those described as occurring during the passage of the land-formed storms. In this case, however, the rainfall as a rule will be entirely confined to the southern districts of Bengal, and will not penetrate at all into such districts as Behar.

The average rainfall in Bengal is therefore small in all districts; it is slightly over half an inch in Orissa, about equal to a third of an inch in Chutia Nagpur and East Bengal, and to about a fifth of an inch in South-West Bengal and South Behar; while in North Bengal and North Behar the average fall is even less than a fifth of an inch.

Meteorology of the month.—The chief features in the meteorology of December have been—

- 1st.—The complete absence of storms of the usual cold-weather type which form in Northern India and advance in a south-easterly direction.
- 2nd.—The occurrence of two cyclonic storms in the Bay: the first more or less of the usual character, which formed in the south of the Bay and advanced in a westerly direction across the extreme south of the peninsula, while the second was a most abnormal storm. It occurred very much later in the year than cyclonic storms have usually hitherto been formed. It was also formed rather further north than usual, and finally drifted in a north-westerly direction towards the North Madras coast. It was also a very severe storm.
- 3rd.—The pressures recorded in Bengal were in all cases below the normal, the usual defect averaging about two or three-hundredths of an inch; the defects were generally greatest over an area represented by such stations as Bankipur, Bhagulpur, Burdwan, and Berhampur on the west and Dhubri on the east, where the defect equalled about four-hundredths of an inch.
- 4th.—Temperature was in excess for the greater part of the month, and the mean temperature for the province of Bengal was about one and-a-half degrees in excess of the normal, while in Assam the excess was larger than two degrees.
- 5th.—The air was decidedly more moist than usual, the excess in the percentage of humidity ranging up to seventeen per cent. at Jessore.
- 6th.—Cloud proportion was above the normal in the southern districts and below it over the northern half of the province.
- 7th.—As there were no land-formed or cold-weather storms, there was no general rainfall over the province; but owing to the nature of the second cyclonic storm in the Bay referred to above, moderate showers were received in some of the southern districts of the province.

The first half of December was a period during which north-east monsoon conditions were present in Bengal and over the greater part of the Bay in fairly well pronounced degree. In Bengal itself temperature and humidity were low and pressure rather high, while a steady northerly wind current blew over the whole province, the skies were almost cloudless, and rainfall was entirely absent. In the Bay also fine weather was reported during the whole of this period, and there was an almost complete absence of rain along the Madras coast, though at this period rain generally occurs here. On the 16th of December, however, conditions commenced to change in the south of the Bay, pressure began to fall along the South Coromandel coast, while elsewhere it was rising, and winds along the Burma coast showed indraught towards a disturbed area in the south of the Bay. It is probable on this day a small cyclonic storm had formed in the extreme south of the centre of the Bay. On the morning of the 17th it had advanced in a westerly direction, and the centre was then probably to the north-east of Trincomalee and east-south-east of Negapatam. On the morning of the 18th the storm had commenced to cross the south of the peninsula, and the centre was at 8 a.m. a short distance to the south-south-west of Negapatam. It afterwards apparently entirely crossed the peninsula. It was a storm in which the winds were of only moderate violence, and squally weather only obtained along the Coromandel coast, but a heavy wave of

rainfall was brought by the storm and gave to the Madras coast and the south of the peninsula general and rather heavy rain, which lasted for several days. The storm, however, was too far distant from Bengal to cause any considerable alteration in the weather, and up to about the 20th of the month the conditions in Bengal remained those of the ordinary north-east monsoon, as previously described. At this time a severe storm was formed in the Bay, the description of which, as given in the weekly report, is as follows:—

On December 21st conditions in Bengal remained unaltered, but skies clouded up heavily over the south of Burma. Drizzling rain commenced over this area, and pressure fell slightly at Diamond Island, while elsewhere it was generally rising. Winds also at the South Burma stations commenced to show distinct indraught towards the south of the Bay and at Diamond Island, instead of the light winds usual at this season, winds had increased to almost a gale. On this day, therefore, it is clear that weather had become very disturbed over the south of the Bay, and it is probable that a cyclonic storm had commenced to form. On the 22nd the area of stormy weather was still quite in the south of the Bay and probably about Longitude 88° E. The storm, therefore, appeared on this day to have drifted in a westerly direction, and probably the centre of the storm was not further north than Negapatam. At this time all the indications appeared to point to the probability that the storm would advance across the extreme south of the peninsula, or even across the north of Ceylon. On the morning of the 23rd, the storm was probably to the east-north-east of Negapatam and at some distance from land, and it was moving slowly in a north-westerly direction. On the 24th it had again advanced in a north-westerly direction, and its centre was probably to the east of Nellore or east-north-east of Madras; while on the morning of the 25th it had come much nearer the land, and its centre was to the south-east of Masulipatam. Even on the morning of the 25th it was apparent that the storm had ceased to intensify, but it was on this date a rather severe storm; but by the morning of the 26th, and particularly from midnight of the 25th, the storm had commenced to fill up rather rapidly. On this date it had become only a barometric depression, but it was accompanied by fairly strong winds, and the position of its centre was decidedly nearer the land than on the previous day, and it was perhaps even a little to the south-west of its previous position. On the morning of the 27th the depression had quite passed inland, the centre crossing the coast apparently between Masulipatam and Nellore during the afternoon or evening of the 26th. The storm in its progress was accompanied by only a moderate barometric depression as indicated by the readings at the coast stations, but it will be observed that the storm centre was at no time very near to any meteorological station while it existed as a severe storm. Decidedly low pressures, however, appear to have been experienced by the vessel *Java* which was involved in the storm. The strength of the winds in the northern half of the storm was decidedly great, and for two days a gale of wind was blowing at some of the ports on the west coast. Certain observations taken on board the S.S. *Java*, which was involved in the storm, also show that hurricane winds and very severe weather accompanied the northern half of the storm, but winds in the southern half appear to have been comparatively feeble. The rainfall in connection with the storm at the land stations was also only moderate.

As is usually the case, directly a rather severe storm is formed in the Bay, weather conditions commenced to change in Bengal. Temperature at first began to rise slowly, but from about the 23rd or 24th, when the skies had clouded over quickly, the night temperatures rose very rapidly and became very high. The storm in its north-westerly advance apparently also caused a wave of moist winds from the sea to advance over Bengal, and on about the 24th at many stations the sky was almost overcast, while humidity as well as temperature was high. In Orissa and South-East Bengal, and in parts of South and even North Bengal, so much moisture was thus brought up that light showers commenced to fall at a few stations, and dull and rather gloomy weather obtained for some days. At this period, therefore, the general conditions were almost the reverse of normal north-east monsoon weather, but with the gradual breaking up of the storm on the 26th, and with its disappearance inland on the 27th, conditions had begun slowly to improve again in Bengal on the 26th and 27th of the month, and at the close of the month again fine weather with almost cloudless skies, rather rapidly reducing temperature with fairly low humidity, an increasing pressure, and complete absence of rain again obtained; or, in other words, again normal cold-weather conditions had set in over the province.

Pressure.—The variations of pressure during the month were not of any great importance. The mean pressure at the commencement of December varied from a twentieth to a tenth of an inch below the normal. During the second week of the month, when the cold-weather conditions were present rather strongly, the mean pressure became almost normal, and this continued to be the case up till the last week, when the conditions generally became influenced by the existence of the severe storm in the Bay, when pressure was again in distinct defect of the normal. For the whole month, therefore, the mean pressure has been generally below the normal by amounts varying from two to four-hundredths of an inch. The largest defects were generally registered at Bhagalpur, Bankipur, Burdwan, Bankoora, and Berhampore, in the western districts of the province, and at Dhubri in Assam, and at Chittagong in the eastern districts; but even in these cases the defects do not exceed four-hundredths of an inch.

Temperature.—The temperature variations during the month have been rather large. At the commencement the mean temperature was nearly normal; for the second week a general

defect of about a degree was registered, but in South-West Bengal there was a defect of about three degrees. In the third week the mean temperature had become almost normal, but in the fourth week, owing to the influence of the disturbed conditions brought about by the storm in the Bay, a very rapid increase in the night temperatures took place, and temperature generally became rather largely in excess of the normal; the excess in South-West and East Bengal and in South Behar averaging from five to six degrees. For the whole month, therefore, the average mean temperature has been above the normal, the excess ranging from about one degree in Orissa and South-West Bengal to nearly two degrees in East and North Bengal, while in Assam the excess is larger than two degrees. The general variation of temperature from the normal during the month is best shown by the following table, which gives the variations of the average maximum, minimum and mean temperatures at nine typical stations in different districts in the province from the normal values, week by week, throughout the month:—

STATIONS.	WEEK ENDING 6TH DECEMBER 1889.			WEEK ENDING 13TH DECEMBER 1889.			WEEK ENDING 20TH DECEMBER 1889.			WEEK ENDING 27TH DECEMBER 1889.		
	Variation of actual mean maximum temperature of week from normal mean.	Variation of actual mean minimum temperature of week from normal mean.	Variation of actual mean daily temperature of week from normal mean.	Variation of actual mean maximum temperature of week from normal mean.	Variation of actual mean minimum temperature of week from normal mean.	Variation of actual mean daily temperature of week from normal mean.	Variation of actual mean maximum temperature of week from normal mean.	Variation of actual mean minimum temperature of week from normal mean.	Variation of actual mean daily temperature of week from normal mean.	Variation of actual mean maximum temperature of week from normal mean.	Variation of actual mean minimum temperature of week from normal mean.	Variation of actual mean daily temperature of week from normal mean.
Cuttack	-2.3	-0.6	-0.9	-0.5	-2.9	-1.7	-1.8	-2.2	-2.0	+1.2	+7.8	+4.5
Calcutta	-0.9	-1.3	-1.1	-1.5	-4.2	-2.9	-0.9	-1.7	-1.3	+3.0	+8.0	+5.5
Dacca	-1.7	+1.3	-0.3	-1.6	-2.6	-2.1	-0.2	+0.9	+0.4	+3.9	+6.3	+5.1
Burdwan	-0.9	+0.1	-0.4	-1.6	-3.4	-2.5	-0.9	-1.2	-1.1	+3.0	+8.3	+6.0
Patna	+0.9	+0.4	+0.6	+0.2	-1.9	-0.9	+0.2	-0.6	-0.3	+4.0	+5.0	+4.4
Gya	+0.8	+1.2	+1.0	+0.6	+1.2	+0.8	+0.2	-0.9	-0.4	+3.2	+5.9	+3.5
Purneah	-1.1	+1.4	+0.1	-2.3	-1.5	-2.1	-1.6	+2.5	+0.4	+2.2	+5.0	+3.6
Hazaribagh	+1.6	-0.4	+0.6	+0.4	-2.0	-0.8	+1.0	-0.6	+0.2	+3.2	+4.8	+3.9
Darjeeling	+2.7	+2.8	+2.7	+2.4	-0.3	+1.1	+5.4	+1.9	+3.6	+7.9	+1.7	+4.8

Rainfall.—As previously stated, rain occurred towards the end of the month in some of the southern districts in connection with a wave of moist winds brought up by the storm in the Bay. The only districts, however, which received any rainfall of importance were the Pooree district in Orissa and the Chittagong, Chittagong Hill Tracts, Backergunge, and Noakholly districts of East Bengal. A few showers were also received in the following districts:—Cuttack, Khoolna, and Pubna. The falls in East Bengal generally averaged 0.15 inch and in Orissa 0.12 inch, but elsewhere they were of no importance.

The following table gives in a condensed form the summary of the rainfall information in Bengal for the whole year. It gives a comparison between the actual monthly and total rainfall of the year, with the normal values in each of the seven meteorological divisions of Bengal; the actual falls being expressed as percentages of the normal amounts. From these figures it will be seen that all the districts, except Chutia Nagpur, have received good falls during the year, while in Chutia Nagpur there has been a defect of 17 per cent. :—

METEOROLOGICAL DIVISIONS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Actual rainfall of the year 1889 ex- pressed as a per- centage of the normal fall for the period.
Orissa	16	120	18	26	75	123	90	117	55	150	835	22	111
South-West Bengal	182	123	35	62	55	140	84	71	90	112	1,523	5	98
East Bengal	79	81	20	86	67	113	92	94	89	133	335	42	96
North Bengal	553	170	10	46	40	126	120	86	117	44	713	6	101
North Behar	480	260	23	40	43	162	130	87	147	8	400	Nil	118
South Behar	339	291	73	14	57	143	94	94	114	40	365	Nil	104
Chutia Nagpur	121	122	47	130	45	122	77	76	72	71	439	Nil	83

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the month of December 1889 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.							RAINFALL.						
	Highest observed during month.	Lowest observed during month.	Averages for month.			Average mean of month above or below normal mean of month.	Of month.*			Rainy days.			Since 15th May 1889.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in month.	Normal average number in month.	Variation.	Average.	Normal average.
Orissa	84.9*	50.5*	79.5*	58.7*	69.0*	+0.9*	0.13	0.55	-0.43	0.6	1.1	-0.5	62.01	53.08
South-West Bengal	82.1	48.4	77.4	56.8	67.1	+0.8	0.01	0.21	-0.20	0.2	0.6	0.4	52.37	51.49
East Bengal	84.0	53.4	77.9	58.5	68.2	+1.7	0.15	0.26	-0.21	0.6	0.8	-0.2	75.53	73.73
North Bengal	81.4*	48.1*	77.9*	55.1*	66.5*	+1.8*	0.01	0.17	-0.16	0.1	0.6	-0.5	73.12	70.00
North Benar	79.9	44.9	75.8	52.2	64.0	+1.3	Nil	0.14	-0.14	0.0	0.5	-0.5	57.06	48.19
South Benar	81.8	44.6	76.3	51.4	63.9	+1.6	Nil	0.20	-0.20	0.0	0.5	-0.5	44.16	43.30
Chutia Nagpur	77.0*	43.7*	73.1*	50.6*	61.6*	+1.1*	Nil	0.34	-0.34	0.0	0.8	-0.8	43.68	48.91
Assam	84.6	45.0	77.0	56.7	66.9	+2.2								

* Pooree, Julpigoree, and Chyebassa not included.

METEOROLOGICAL OFFICE, BENGAL,

The 14th January 1890.

A. PEDLER,

Meteorological Reporter to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.		DISTRICT.	Representative station.	STATION OBSERVATIONS.												
				AIR PRESSURE.			WIND.		TEMPERATURE.							
				Mean barometric height, 9 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.
OMHA.	Pooree	Pooree	30.033	30.046	—0.013	N	151	?	?	54.4	4 & 9 Jan.	?	57.3	?	?	64.1
	Gopalpore	Gopalpore	30.026	30.076	—0.048	NNW	213	81.7	4th Jan.	60.0	4 & 5 "	79.6	61.4	70.5	+0.4	65.4
	False Point	False Point	30.023	30.046	—0.023	NW	120	80.4	7th-9th Jan.	53.0	4th "	79.0	57.3	68.2	—0.1	62.4
	Cuttack	Cuttack	29.984	30.069	—0.085	Calm	21	83.3	7th, 9th, 10th Jan.	55.9	4th "	82.1	58.8	70.5	—1.1	62.5
SOUTH-WEST BENGAL.	Balasore	Balasore	30.005	30.067	—0.062	NNW	124.6	81.3	7th, 9th Jan.	53.5	4th "	79.5	55.8	67.7	+0.8	61.7
	South-West Midnapore	Saugor Island	30.023	30.050	—0.027	North-westerly.	147	77.2	7th "	57.9	9th, 10th Jan.	75.3	59.9	67.6	+0.5	64.6
	Midnapore	Midnapore	29.998	30.037	—0.039	N	31.7	82.3	8th "	54.2	9th, 10th Jan.	80.2	56.8	68.5	+2.7	61.6
	24-Pergunnahs	Calcutta	30.026	30.049	—0.023	N	51	78.3	9th "	55.3	9th "	76.9	57.3	67.0	+1.8	61.2
SOUTH-WEST BENGAL.	Howrah	Howrah	29.935	30.041	—0.106	North-westerly.	30.9	80.5	8th "	53.7	9th "	78.8	57.9	68.1	+2.4	60.9
	Hooghly	Hooghly	29.717	30.039	—0.322	W	50	80.1	8th "	53.3	9th "	78.3	56.6	67.5	+2.3	59.5
	Burdwan	Burdwan	29.716	30.069	—0.353	W	45.4	80.7	6th "	54.4	9th "	79.1	56.8	67.9	+2.7	60.3
	Bankoora	Bankoora	29.971	30.042	—0.069	NW	40.2	79.1	7th "	55.7	9th "	77.3	57.0	67.3	+3.8	59.3
SOUTH-WEST BENGAL.	Beerbhoom	Raneegunge	30.009	30.070	—0.061	WNW	56.9	80.3	7th "	53.2	9th "	78.9	55.1	67.0	+3.4	61.1
	West Burdwan	Krishnagar	30.000	30.035	—0.035	Calm	22.9	79.7	7th "	57.0	9th "	78.7	59.1	68.9	+4.1	61.2
	Moorshedabad	Jessore	29.950	30.044	—0.094	Calm & W	38.6	80.1	5th "	53.6	7th "	79.2	60.2	69.7	+4.0	63.1
	Nudda	Chittagong	30.022	30.035	—0.013	Calm	25.2	79.3	8th Jan.	58.1	4th "	77.7	59.9	68.5	+5.1	64.3
EAST BENGAL.	Chittagong Hill Tracts	Demagiri	30.022	30.035	—0.013	Calm	25.2	79.3	8th Jan.	58.1	4th "	77.7	59.9	68.5	+5.1	64.3
	Backergunge	Barrisal	30.005	30.051	—0.046	Variable	53.3	79.0	7th & 10th Jan.	56.0	8th "	77.9	57.9	67.9	—	62.3
	Noakholly	Noakholly	30.005	30.047	—0.042	Calm	39	74.0	4, 5, 9, 10 Jan.	57.5	9th "	78.8	58.2	66.0	+2.8	61.3
	Furteedpore	Furteedpore	30.004	30.028	—0.024	Variable	67.9	81.1	5th "	55.8	9th "	79.5	58.4	69.0	+3.1	63.1
EAST BENGAL.	Dacca	Dacca	30.017	30.054	—0.037	SE	30.7	83.9	5th "	56.5	8th "	79.0	58.3	68.7	+4.6	64.3
	Tipperah	Commillah	29.982	30.013	—0.031	ENE	55.0	76.9	5th "	60.5	10th "	75.3	61.5	68.4	+5.3	62.9
	Mymensingh	Mymensingh	29.965	30.022	—0.057	Calm	24.9	80.8	5th "	55.3	4th "	77.6	56.5	67.0	+2.1	59.9
	Bogra	Bogra	29.984	30.033	—0.049	SSE	23.4	81.4	5th "	56.0	4th "	78.3	56.7	67.5	+4.8	61.5
NORTH BENGAL.	Pubna	Serajgunge	29.962	30.036	—0.074	N	83.7	78.9	5th "	55.2	4th "	77.2	56.7	66.9	+5.3	60.1
	Rajshahye	Rampo Beau	29.971	30.037	—0.066	NW	61.9	80.0	8th "	53.5	9th "	78.8	55.7	67.3	—	62.1
	Maldah	Maldah	29.925	30.053	—0.128	NE	55	80.1	9th "	55.3	4th, 7th, 10th Jan.	77.8	56.1	67.0	+4.6	61.3
	Dinapore	Dinapore	29.937	30.069	—0.132	E	28	80.8	5th "	55.7	4th "	77.3	55.9	66.6	+5.5	61.7
NORTH BENGAL.	Rungpore	Rungpore	29.755	30.060	—0.305	North-erly.	21.3	?	8th "	55.4	4th "	?	58.7	?	?	60.1
	Julpigoree	Julpigoree	22.989	—	—	WSW	92.1	53.7	4th & 5th Jan.	35.9	4th "	53.4	57.7	45.5	+4.7	49.8
	Cooch Behar	Cooch Behar	29.917	30.052	—0.135	Calm	26.4	77.7	5th "	50.0	4th "	74.3	52.2	63.2	+2.3	56.3
	Darjeeling Hill Tracts	Darjeeling	29.990	30.069	—0.079	WNW	34	78.9	6th Jan.	54.9	9th "	76.6	55.8	66.1	+4.3	58.1
NORTH BENGAL.	Purneah	Purneah	29.925	30.070	—0.145	Variable	76.2	?	.....	48.9	5th "	?	50.1	?	?	55.0
	Mozufferpore	Mozufferpore	29.717	30.097	—0.380	SW	116.6	77.9	9th Jan.	49.5	9, 10 "	76.6	52.8	64.7	+4.0	56.7
	Durbhunga	Durbhunga	29.724	30.085	—0.361	WNW	59.3	76.9	6th "	48.9	8th "	75.4	51.5	63.9	+2.3	56.1
	Chumpran	Motihari	29.571	30.086	—0.515	Calm	47.2	78.0	5th "	49.3	9th "	76.1	51.7	63.9	+4.0	55.8
SOUTH BENGAL.	Saran	Chupra	29.682	30.087	—0.405	S	103.9	77.9	7th "	46.4	9th "	76.6	52.7	64.7	+1.7	57.4
	Shahabad	Shahabad	29.579	30.076	—0.497	SW	19.5	77.5	6th "	50.2	8th "	75.6	53.3	64.5	+3.9	57.3
	Gya	Gya	29.583	30.035	—0.452	Calm & WNW	45	79.1	6th "	55.0	9th "	76.7	54.6	63.6	+4.4	58.7
	Pains	Bankipore	29.533	30.064	—0.531	NNW	48.3	78.6	6th "	51.9	9th "	76.9	54.8	65.8	—	59.1
CHUTIA NAGPUR.	South Bhagulpore	Bhagulpore	27.963	30.092	—0.129	Variable	117.6	74.3	10th "	50.3	9th "	72.9	51.9	62.4	+1.7	58.7
	Monghyr	Monghyr	27.854	30.078	—0.224	Calm	92.5	76.0	8th "	47.9	8th "	73.1	50.9	62.0	+1.3	57.4
	Sonthal Pergunnah	Doomka	29.282	30.088	—0.806	SSW	23.8	81.5	8th "	49.8	10th "	78.9	53.1	66.0	—	60.3
	Hazaribagh	Hazaribagh	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CHUTIA NAGPUR.	Lehardunga	Ranchee	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Mahaboom	Mahaboom	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CHUTIA NAGPUR.	Sinabhoom	Chyebaasa	29.282	30.088	—	SSW	23.8	81.5	8th "	49.8	10th "	78.9	53.1	66.0	—	60.3

* Means of six days. † Means of five days.
 Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed as percentage, saturated air being represented by 100. A clear sky is denoted by c and an overcast sky by 10. The number in the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station for the period in question during the past stations in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 10th of January 1890.

DISTRICT OBSERVATIONS.															Representative station.		DISTRICT.		METEOROLOGICAL DIVISION.
Average humidity at 5 A.M.	Average cloud amount at 5 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.														
					Since 1st of month.			Since 15th May 1889.			Average number of rainy days.	Normal number of rainy days.							
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.									
83	0.6	NH	NH	0.01	NH	0.02	-0.02	74.88	55.19	+19.69	0.0	0.1	Poorree	Poorree	ORISSA.				
77	0.1	NH	NH										Gopalpore						
88	1.0	NH	NH										False Point						
75	1.4	NH	NH	0.04	NH	0.04	-0.04	65.24	51.59	+14.65	0.0	0.1	Cuttack	Cuttack	SOUTH-WEST BENGAL.				
83	0	NH	NH	0.05	NH	0.10	-0.10	49.89	52.70	-2.81	0.0	0.1	Balasore	Balasore					
93	0.1	NH	NH	0.06	NH	0.09	-0.09	58.43	62.10	-3.67	0.0	0.1	Sanger Island	South-West Midnapore					
79	0.0	NH	NH	0.09	NH	0.16	-0.16	46.29	51.23	-4.94	0.0	0.2	Midnapore	South 24-Pergunnahs	SOUTH-WEST BENGAL.				
92	0.9	NH	NH	0.08	NH	0.15	-0.15	53.38	51.33	+2.05	0.0	0.2	Calcutta	Midnapore					
76	1.4	NH	NH	0.07	NH	0.07	-0.07	43.83	46.38	-2.55	0.0	0.2		24-Pergunnahs...					
82	0.9	NH	NH	0.07	NH	0.07	-0.07	55.88	52.38	+3.50	0.0	0.2	Burdwan	Howrah	SOUTH-WEST BENGAL.				
80	1.7	NH	NH	0.10	NH	0.10	-0.10	52.44	51.28	+1.16	0.0	0.2	Bankoora	Hooghly					
95	0	NH	NH	0.10	NH	0.10	-0.10	51.15	50.12	+1.03	0.0	0.2	Raneegunge	Burdwan					
88	0.1	NH	NH	0.07	NH	0.08	-0.08	51.40	48.97	+2.43	0.0	0.2	Berhampore	West Burdwan	SOUTH-WEST BENGAL.				
93	0.7	NH	NH	0.07	NH	0.11	-0.11	53.39	52.78	+0.61	0.0	0.2	Krishnaghur	Moorshedabad					
93	3.1	NH	NH	0.06	NH	0.08	-0.08	100.92	113.10	-12.18	0.0	0.2	Jessore	Nuddea					
93	0.3	NH	NH	0.13	NH	0.15	-0.15	65.13	80.78	-15.65	0.0	0.2	Chittagong	Jessore	SOUTH-WEST BENGAL.				
93	0.3	NH	NH	0.19	NH	0.24	-0.24	77.82	76.56	+1.26	0.0	0.3	Demagiri	Khoolna					
91	0	NH	NH	0.19	NH	0.37	-0.37	90.29	106.20	-15.91	0.0	0.3	Barrisal	Chittagong Hill Tracts					
95	1.4	NH	NH	0.07	NH	0.10	-0.10	60.92	55.51	+4.41	0.0	0.2	Noakholly	Backergunge	EAST BENGAL.				
92	1.1	NH	NH	0.08	NH	0.10	-0.10	74.59	59.33	+15.26	0.0	0.2	Furzedpore	Noakholly					
90	1.0	NH	NH	0.16	NH	0.21	-0.21	55.45	69.03	-13.58	0.0	0.2	Dacca	Furzedpore					
94	2.6	NH	NH	0.08	NH	0.09	-0.09	87.63	67.30	+20.33	0.0	0.2	Commillah	Dacca	EAST BENGAL.				
93	0	NH	NH	0.05	NH	0.06	-0.06	64.81	56.99	+7.82	0.0	0.2	Mymensingh	Tipperah					
95	0.4	NH	NH	0.06	NH	0.07	-0.07	55.07	52.96	+2.11	0.0	0.2	Bogra	Mymensingh					
90	0	NH	NH	0.16	NH	0.16	-0.16	54.30	53.48	+0.82	0.0	0.2	Serajunge	Bogra	NORTH BENGAL.				
83	1.0	NH	NH	0.09	NH	0.09	-0.09	39.76	53.84	-14.08	0.0	0.2	Rampore Beaulah	Pubna					
89	1.1	NH	NH	0.05	NH	0.05	-0.05	57.37	56.63	+0.72	0.0	0.2	Maldah	Rajshahye					
93	0.6	NH	NH	0.02	NH	0.09	-0.07	85.18	75.81	+9.37	0.2	0.2	Dinapore	Maldah	NORTH BENGAL.				
89	2.7	0.05	0.06	0.02	0.06	0.02	+0.04	117.19	111.22	+5.97	0.6	0.1	Rungpore	Dinapore					
84	5.4	0.16	0.22	0.08	0.22	0.09	+0.13	132.97	120.37	+12.60	1.3	0.3	Julpigoree	Rungpore					
94	0.4	NH	NH	0.06	NH	0.07	-0.07	74.71	58.21	+16.50	0.0	0.2	Darjeeling	Cooch Behar	NORTH BENGAL.				
90	0	NH	NH	0.06	NH	0.12	-0.12	48.66	42.73	+5.93	0.0	0.2	Purneah	Darjeeling Hill Tract					
90	0	NH	NH	0.06	NH	0.12	-0.12	51.84	44.16	+7.68	0.0	0.1	Mozufferpore	Purneah					
90	0	NH	NH	0.05	NH	0.06	-0.06	63.55	46.19	+17.36	0.0	0.1	Durbhunga	North Bhagulpore	NORTH BENGAL.				
82	0	NH	NH	0.06	NH	0.06	-0.06	40.13	42.27	-2.14	0.0	0.2	Motihari	Mozufferpore					
82	0.1	NH	NH	0.06	NH	0.08	-0.08	40.07	39.08	+0.99	0.0	0.2	Chupra	Durbhunga					
88	1.0	NH	NH										Dehree	Chumparun	SOUTH BENGAL.				
75	0.6	NH	NH	0.07	NH	0.10	-0.10	37.07	40.99	-3.92	0.0	0.2	Buxar	Sarun					
85	0	NH	NH	0.07	NH	0.10	-0.10	43.49	40.88	+2.61	0.0	0.2	Arrah	Shahabad					
80	0.0	NH	NH	0.06	NH	0.06	-0.06	42.43	43.14	-0.71	0.0	0.2	Gya	Gya	SOUTH BENGAL.				
86	0	NH	NH	0.09	NH	0.09	-0.09	54.15	50.43	+3.72	0.0	0.2	Bankipore	Patna					
72	1.4	NH	NH	0.19	NH	0.19	-0.19	43.03	50.30	-7.27	0.0	0.3	Bhagulpore	South Bhagulpore					
71	0.3	NH	NH	0.20	NH	0.20	-0.20	44.34	48.84	-4.50	0.0	0.3	Doonka	Monghyr	SOUTH BENGAL.				
74	0.7	NH	NH	0.09	NH	0.09	-0.09	38.33	46.34	-8.01	0.0	0.2	Hazaribagh	Sonthal Pergunnahs...					
													Ranchi	Lohardugga					
														Manthoom	CHUTTA NAGPUR.				
														Singbhoom					

On years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater.
 Missing cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means
 of years. The means of the district are the numerical average of the rainfall return received in the district, i.e., from total rainfall at the subdivisional

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 10th of January 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 10th May 1889.	Average rainfall from 10th May to date.
			Saturday, 4th January 1890.	Sunday, 5th January.	Monday, 6th January.	Tuesday, 7th January.	Wednesday, 8th January.	Thursday, 9th January.	Friday, 10th January.	Number of rainy days.	of rainfall week.				
ORISSA	Pooree	Pooree	...	...	...	...	...	...	...	NH	NH	NH	NH	80.63	51.08
		Khurda	...	...	...	...	...	...	...	NH	NH	NH	NH	76.27	50.25
		Bampur	...	...	...	...	...	...	...	NH	NH	NH	NH	65.80	48.95
		False Point	...	...	...	...	...	...	...	NH	NH	NH	NH	76.80	63.27
		Gop	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?
		Pipli	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?
	Cuttack	Jagatsingapore	...	...	...	...	...	...	...	NH	NH	NH	NH	73.97	46.73
		Banki	...	...	...	...	...	...	...	NH	NH	NH	NH	52.48	40.33
		Cuttack	...	...	...	...	...	...	...	NH	NH	NH	NH	26.18	56.08
		Kendrapara	...	...	...	...	...	...	...	NH	NH	NH	NH	72.03	52.78
		Jajpore	...	...	...	...	...	...	...	NH	NH	NH	NH	57.94	53.14
	Balasore	Dharmasala	...	...	...	...	...	...	...	NH	NH	NH	NH	69.25	?
		Saltipore	...	...	...	...	...	...	...	NH	NH	NH	NH	72.47	?
		Chandbali	...	...	...	...	...	...	...	NH	NH	NH	NH	54.64	52.03
		Rhuddruck	...	...	...	...	...	...	...	NH	NH	NH	NH	57.06	51.93
		Sorah	...	...	...	...	...	...	...	NH	NH	NH	NH	46.05	50.87
SOUTH-WEST BENGAL.	Midnapore	Balasore	...	...	...	...	...	...	...	NH	NH	NH	NH	40.61	57.54
		Jellapore	...	...	...	...	...	...	...	NH	NH	NH	NH	39.59	53.43
		Raripedah	...	...	...	...	...	...	...	NH	NH	NH	NH	54.79	53.64
		Contai	...	...	...	...	...	...	...	NH	NH	NH	NH	55.13	61.08
		Saugor Island	...	...	...	...	...	...	...	NH	NH	NH	NH	56.74	66.76
	24-Pargunnahs	Tumbok	...	...	...	...	...	...	...	NH	NH	NH	NH	40.49	50.80
		Midnapore	...	...	...	...	...	...	...	NH	NH	NH	NH	46.20	45.51
		Ghatal	...	...	...	...	...	...	...	NH	NH	NH	NH	43.19	54.26
		Kukrahaty	...	...	...	...	...	...	...	NH	NH	NH	NH	59.65	?
		Heria	...	...	...	...	...	...	...	NH	NH	NH	NH	65.06	?
	Howrah	Bhagwanpore	...	...	...	...	...	...	...	NH	NH	NH	NH	61.72	?
		Garbeta	...	...	...	...	...	...	...	NH	NH	NH	NH	46.29	?
		Diamond Harbour	...	...	...	...	...	...	...	NH	NH	NH	NH	63.41	58.03
		Canning Town	...	...	...	...	...	...	...	NH	NH	NH	NH	57.80	55.46
		Alipore Jail	...	...	...	...	...	...	...	NH	NH	NH	NH	51.79	49.52
	Burdwan	Barrackpore	...	...	...	...	...	...	...	NH	NH	NH	NH	64.58	51.81
		Dum-Dum	...	...	...	...	...	...	...	NH	NH	NH	NH	57.61	49.58
		Baraset	...	...	...	...	...	...	...	NH	NH	NH	NH	60.02	54.24
		Buseerhat	...	...	...	...	...	...	...	NH	NH	NH	NH	59.12	51.33
		Howrah	...	...	...	...	...	...	...	NH	NH	NH	NH	54.64	51.73
	Hooghly	Mohesra	...	...	...	...	...	...	...	NH	NH	NH	NH	55.37	49.80
		Hooghly	...	...	...	...	...	...	...	NH	NH	NH	NH	36.93	47.94
		Jehanabad	...	...	...	...	...	...	...	NH	NH	NH	NH	41.16	54.70
	Burdwan	Serampore	...	...	...	...	...	...	...	NH	NH	NH	NH	41.32	43.95
		Culina	...	...	...	...	...	...	...	NH	NH	NH	NH	47.07	47.54
	Bankura	Cutwa	...	...	...	...	...	...	...	NH	NH	NH	NH	43.11	47.51
		Raneegunge	...	...	...	...	...	...	...	NH	NH	NH	NH	55.83	48.78
		Mankur	...	...	...	...	...	...	...	NH	NH	NH	NH	53.71	?
	Bankura	Bankura	...	...	...	...	...	...	...	NH	NH	NH	NH	58.79	51.19
		Bishnupore	...	...	...	...	...	...	...	NH	NH	NH	NH	57.49	51.96
		Maliara	...	...	...	...	...	...	...	NH	NH	NH	NH	50.06	51.64
		Khaira	...	...	...	...	...	...	...	NH	NH	NH	NH	65.91	53.94
		Indas	...	...	...	...	...	...	...	NH	NH	NH	NH	45.14	?
	Beebhoom	Kotalpore	...	...	...	...	...	...	...	NH	NH	NH	NH	48.40	?
		Anda	...	...	...	...	...	...	...	NH	NH	NH	NH	40.44	?
		Gangajalhati	...	...	...	...	...	...	...	NH	NH	NH	NH	59.17	?
		Kaipore	...	...	...	...	...	...	...	NH	NH	NH	NH	58.35	?
		Sonamukhi	...	...	...	...	...	...	...	NH	NH	NH	NH	54.33	?
	Nuddes	H. Soory	...	...	...	...	...	...	...	NH	NH	NH	NH	59.06	53.36
		Hetanpore	...	...	...	...	...	...	...	NH	NH	NH	NH	47.07	53.91
		Rampore Hani	...	...	...	...	...	...	...	NH	NH	NH	NH	47.78	51.13
		Boipore	...	...	...	...	...	...	...	NH	NH	NH	NH	54.97	?
		Murari	...	...	...	...	...	...	...	NH	NH	NH	NH	53.16	?
	Khoolna	Ranaghat	...	...	...	...	...	...	...	NH	NH	NH	NH	55.80	46.63
		Kishnaghat	...	...	...	...	...	...	...	NH	NH	NH	NH	42.95	45.81
		Choodanga	...	...	...	...	...	...	...	NH	NH	NH	NH	40.81	50.79
		Meherpore	...	...	...	...	...	...	...	NH	NH	NH	NH	53.05	47.90
		Koostha	...	...	...	...	...	...	...	NH	NH	NH	NH	55.91	54.15
	Jessore	Satkira	...	...	...	...	...	...	...	NH	NH	NH	NH	52.51	54.89
		Bagirhat	...	...	...	...	...	...	...	NH	NH	NH	NH	54.00	60.00
		Khoolna	...	...	...	...	...	...	...	NH	NH	NH	NH	55.78	54.37
		Nakipur	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?
		Narail	...	...	...	...	...	...	...	NH	NH	NH	NH	49.47	45.44
	Moorshedabad	Jessore	...	...	...	...	...	...	...	NH	NH	NH	NH	62.35	53.37
		Jhenidah	...	...	...	...	...	...	...	NH	NH	NH	NH	59.66	53.06
		Magoorah	...	...	...	...	...	...	...	NH	NH	NH	NH	56.48	48.94
		Boungong	...	...	...	...	...	...	...	NH	NH	NH	NH	46.01	51.44
		Kandi	...	...	...	...	...	...	...	NH	NH	NH	NH	53.38	50.76
	Chittagong	Berhampore	...	...	...	...	...	...	...	NH	NH	NH	NH	46.16	50.02
		Lalibagh	...	...	...	...	...	...	...	NH	NH	NH	NH	47.13	60.50
		Azimungo		...	...	...	...	...	...	...	NH	NH	NH	NH	62.13	50.78
		Jongipore		...	...	...	...	...	...	...	NH	NH	NH	NH	53.01	48.70
		Lalgaon		...	...	...	...	...	...	...	NH	NH	NH	NH	59.02	60.53
	East Bengal	Jagunje	...	...	...	...	...	...	...	NH	NH	NH	NH	43.25	?
		Akkrigunj	...	...	...	...	...	...	...	NH	NH	NH	NH	42.81	?
		Patkabari	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?
		Cor's Bazar	...	...	...	...	...	...	...	NH	NH	NH	NH	123.50	135.14
		Chittagong	...	...	...	...	...	...	...	NH	NH	NH	NH	76.42	93.80
	Chittagong Hill Tracts.	Kutubdia	...	...	...	...	...	...	...	NH	NH	NH	NH	118.09	?
		Satkanya	...	...	...	...	...	...	...	NH	NH	NH	NH	63.66	?
		Ranganati	...	...	...	...	...	...	...	NH	NH	NH	NH	63.04	85.55
		Ruma	...	...	...	...	...	...	...	NH	NH	NH	NH	67.20	70.04
		Backergunge	...	...	...	...	...	...	...	NH	NH	NH	NH	67.20	67.35
	Backergunge	Patuakhali	...	...	...	...	...	...	...	NH	NH	NH	NH	72.16	69.00
		Parosopore	...	...	...	...	...	...	...	NH	NH	NH	NH	72.02	67.23
		Burrial	...	...	...	...	...	...	...	NH	NH	NH	NH	70.26	81.06
		Etola	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?
		Etola	...	...	...	...	...	...	...	NH	NH	NH	NH	?	?

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 10th of January 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday, 4th January 1890.	Sunday, 5th January.	Monday, 6th January.	Tuesday, 7th January.	Wednesday, 8th January.	Thursday, 9th January.	Friday, 10th January.	Number of rainy days.	Rainfall in inch.				
EAST BENGAL—contd.	Noukhally	Gournadi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	61.31	?	
		Banphal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	62.83	?	
		Noukhally	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.26	102.17	107.45	
		Penny	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.47	78.38	100.38	
	Furzedpore	Harishpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	82.96	?	
		Ranganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	80.75	?	
		Madaripore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	60.53	55.10	
		Furzedpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	63.80	55.95	
	Dacca	Goalundo	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	55.29	52.66	
		Mat-shigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	70.23	69.68	
		Dacca	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	73.09	58.15	
		Narsingunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	80.36	59.51	
	Hill Tipperah	Manickgonj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.13	67.99	49.70	
		Joydebpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	66.61	?	
		Agartola	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.21	44.85	61.12	
		Comilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	62.17	73.63	
	Tipperah	Chandpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	64.82	75.44	
		Brahmunberia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	50.68	61.17	
		Ramchandrapore.	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	60.14	?	
		Nasirnagar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	30.59	?	
	Mymensingh	Daudkandi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	12.29	?	
		Kashic	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	62.44	?	
		Laksham	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	63.00	?	
		Kishoregonj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	60.56	60.70	
	Pubna	Atia (Tangail)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	61.00	55.09	
		Mymensingh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	96.55	73.71	
		Jamulpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	83.14	64.81	
		Naturkuna	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	125.93	72.04	
	Bogra	Subornakhally	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	57.43	?	
		Durgapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	149.98	?	
		Sherepore Town	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	87.09	?	
		Dewanganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	56.31	?	
Rajshahy	Beaulah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.13	46.20	52.65		
	Natore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.22	58.54	54.53		
	Naogaon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.12	57.87	50.76		
	Lalpor	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	30.72	?		
Maldah	Manda	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	43.27	?		
	Maldah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.08	50.53	51.37		
	Chanchal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.09	28.96	50.29		
	Gajol	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	39.79	?		
Dinagopore	Sitganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	51.77	?		
	Mohadelpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.13	53.63	55.93		
	Churamon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	51.82	51.93		
	Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	52.25	57.27		
Rangpore	Dinagopore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	67.84	63.98		
	Rajshahy	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	61.28	50.95		
	Thakooragan	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	87.47	?		
	Bhawaniganj (Gyabanda)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	87.35	61.40		
Jalpigore	Rangpore	Nil	Nil	0.09	0.09	0.09	0.09	0.09	1	0.09	0.09	0.11	74.50	74.07	
	Kurigram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	90.97	72.83		
	Bagdogra	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.10	87.09	84.74		
	(Nilphamari)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	79.00	?		
Jalpigore	Uitpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	79.00	?		
	Jalpigore	Nil	Nil	Nil	0.05	0.05	0.05	0.05	1	0.05	0.05	0.03	123.32	116.48	
	Alipore Dou	Nil	Nil	Nil	0.20	0.20	0.20	0.20	Nil	Nil	?	119.58	?		
	Falacotta	Nil	Nil	Nil	0.20	0.20	0.20	0.20	1	0.20	0.20	?	127.63	?	
Cooch Behar.	Debiganj	Nil	Nil	Nil	0.12	0.12	0.12	0.12	Nil	Nil	?	89.92	?		
	Bhagatpore (Nagarkatta)	Nil	Nil	Nil	0.22	0.22	0.22	0.22	3	0.42	0.42	?	138.93	?	
	Uinhatta	Nil	Nil	0.19	0.19	0.19	0.19	0.19	1	0.19	0.19	0.03	98.19	93.75	
	Cooch Behar	Nil	Nil	0.05	0.05	0.05	0.05	0.05	1	0.05	0.05	0.02	125.39	117.88	
Darjeeling Hill.	Mickilgonj	Nil	Nil	Nil	0.05	0.05	0.05	0.05	Nil	Nil	Nil	Nil	121.37	101.21	
	Matlabhanga	Nil	Nil	Nil	0.10	0.10	0.10	0.10	Nil	Nil	Nil	0.01	117.63	111.17	
	Buxa	Nil	Nil	0.01	0.01	0.01	0.01	0.01	2	0.01	0.01	0.23	181.60	191.94	
	Siliguri	Nil	Nil	0.03	0.03	0.03	0.03	0.03	1	0.03	0.03	0.01	120.74	102.51	
North Bhagalpore.	Darjeeling	Nil	Nil	0.03	0.03	0.03	0.03	0.03	0.03	2	0.16	0.16	0.11	128.03	108.23
	Kalimpong	Nil	Nil	0.16	0.16	0.16	0.16	0.16	1	0.16	0.16	0.01	81.63	82.17	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Purneah	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
North Bhagalpore.	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Durbhanga	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Moxuffpore	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Purneah	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
North Bhagalpore.	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Durbhanga	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
Moxuffpore	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	
	Kurseong	Nil	Nil	0.12	0.12	0.12	0.12	0.12	3	0.63	0.63	?	168.88	?	

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 10th of January 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday, 4th January 1890.	Sunday, 5th January.	Monday, 6th January.	Tuesday, 7th January.	Wednesday, 8th January.	Thursday, 9th January.	Friday, 10th January.	Number of rainy days.	Rainfall of week.				
NORTH BHAR	Champanun...	Motihari	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	74.79	44.24
		Retish	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	52.29	47.54
		Baousha	...	...	...	...	...	...	...	Nil	Nil	Nil	?	69.87	?
SOUTH BHAR	Sarun	Barkhura	...	...	...	...	...	...	...	Nil	Nil	Nil	?	51.70	?
		Gopalgunge	...	...	...	...	...	...	...	Nil	Nil	Nil	0.04	35.48	42.77
		Chuprah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	44.30	41.50
SOUTH BHAR	Shahabad	Buxar	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	40.74	40.02
		Uchra	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	47.44	37.95
		Bhaboosa	...	...	...	...	...	...	...	Nil	Nil	Nil	0.04	41.66	39.35
SOUTH BHAR	Gya	Sasserain	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	35.16	40.35
		Arrah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	29.41	40.29
		Mohanish	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	42.69	39.78
SOUTH BHAR	Patna	Patna	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	35.42	42.26
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	30.83	42.14
SOUTH BHAR	Monghyr	Novadsh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	30.69	39.47
		Novadsh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.15	33.40	39.58
		Novadsh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	36.34	?
SOUTH BHAR	South Bhagulpore	Sherrghati	...	...	...	...	...	...	...	Nil	Nil	Nil	?	26.03	?
		Rainuli	...	...	...	...	...	...	...	Nil	Nil	Nil	?	26.29	?
		Pakri Barawan	...	...	...	...	...	...	...	Nil	Nil	Nil	?	17.02	?
SOUTH BHAR	South Bhagulpore	Patna	...	...	...	...	...	...	...	Nil	Nil	Nil	?	31.99	?
		Patna	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	51.49	41.55
		Patna	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	45.53	41.08
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	41.08	41.41
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	35.83	39.44
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	43.28	?
SOUTH BHAR	South Bhagulpore	Hilsa	...	...	...	...	...	...	...	Nil	Nil	Nil	?	35.21	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	47.62	39.69
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	41.67	40.16
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	39.48	42.41
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	59.19	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	43.32	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.04	45.06	41.80
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	38.34	43.20
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	42.97	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.02	59.96	52.06
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	49.04	47.23
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	73.59	55.13
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.15	56.75	52.86
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	40.40	50.29
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.15	45.31	48.29
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	56.41	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	55.87	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	38.90	47.19
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.17	49.10	40.71
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.15	36.24	40.56
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.28	47.55	47.55
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.26	43.00	62.29
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	31.36	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	46.04	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	39.35	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	45.54	50.83
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	53.61	51.03
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.14	34.16	42.76
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	33.80	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	41.40	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	22.77	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	45.76	51.10
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	40.80	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	58.70	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	53.80	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.07	43.46	49.51
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	33.19	44.01
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	43.91	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	44.38	?
SOUTH BHAR	South Bhagulpore	Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	51.42	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	58.56	?
		Barh	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 14th January 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 10TH
JANUARY 1890.**

NORMAL north-east monsoon conditions obtained over the whole of Bengal throughout the previous week. Over the greater part of the province similar conditions have again prevailed during the present week, but there has been an exception to the prevailing fine weather over a part of the north, and to a smaller extent over part of the centre, of the province, from the fact that a very feeble area of relatively low pressure was formed on the 5th which included many stations in the centre of the province, stretching from Dinagepur on the north to Jessore in the south and from Bankoora on the west to Serajgunge in the east, and round which there was a feeble kind of cyclonic circulation of winds, the centre of the circulation being to the east of Berhampore. The feeble area of low pressure was again perceptible on the 6th, the centre being apparently a little north of its position on the previous day, and again there was a slight circulation of winds round the centre. On the 7th the lowest pressure in the province was at Bogra, near which apparently the feeble low-pressure area again existed, but on the 8th pressure had become slightly low over a part of North and East Bengal, while on the 9th the lowest pressure in the province had retreated southwards to Burisal, when conditions became practically normal again. It will be thus seen that there was a tendency for slightly disturbed conditions to set in over the centre and north of the province for the period, the 6th to the 9th of January. The disturbance was, however, not sufficient to do more than give slightly cloudy weather at some of the stations in the centre of the province, but in the hills and at the stations nearest the hills the disturbance showed itself by giving rather heavily-clouded skies and light rain showers. These showers were practically entirely confined to the Julpigoree, Cooch Behar, and Darjeeling Hills districts. In most cases the falls were slight only, and the only station which received a fall larger than half an inch was Kurseong.

Over the remainder of the province fine north-east monsoon weather has continued, though, as is frequently the case when weather is slightly disturbed, temperature and humidity have been somewhat high; but the skies have remained almost cloudless, and rain has been entirely absent from the remainder of the province for the whole week.

Pressure—On the 4th of January fell very slowly at some of the stations in the centre of the province, while it was rising at some of the stations in East and North Bengal. A further general fall took place on the following day except at some of the south-eastern stations. On the 6th a rather rapid rise took place, which was continued on the 7th, but on the 8th pressure had fallen moderately again, though there was again a rise at the end of the week. For the whole province for the week the mean pressure has been considerably in defect of the normal, the average defect ranging from about five to eight-hundredths of an inch.

Temperature—Has been generally increasing during the week, and in all districts, except Orissa, the mean temperature has been rather considerably in excess of the normal, the excess ranging up to more than four degrees in East and North Bengal. For the whole province the mean temperature has been 2.8° in excess of the normal.

The general distribution of temperature during the week, its range from day to night, and its variation from the normal, are best shown in the following table, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with the normal. It will be seen that both day and night temperatures have been in excess of the normal, the night temperatures, if anything, showing rather the greater excess:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 10th January 1890.

	Normal mean maximum temperature for the week ending 10th January.	Actual mean maximum temperature for the week ending 10th January 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 10th January.	Actual mean minimum temperature for the week ending 10th January 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 10th January.	Actual mean daily temperature for the week ending 10th January 1890.	Variation of actual mean from the normal.
Outlook	83.7	82.1	-1.6	59.8	58.8	-1.0	71.8	70.5	-1.3
Calcutta	76.1	76.9	+0.8	54.6	55.2	+0.6	65.4	67.0	+1.6
Dacca	77.0	79.5	+2.5	54.8	58.4	+3.6	65.9	69.0	+3.1
Burdwan	77.3	78.8	+1.5	54.2	57.4	+3.2	65.7	68.1	+2.4
Patna	73.4	75.6	+2.2	48.9	53.3	+4.4	60.7	64.5	+3.8
Gya	75.0	76.6	+1.6	51.3	52.7	+1.4	63.1	64.7	+1.6
Purneah	74.3	74.3	-0.2	47.5	52.2	+4.7	60.9	65.2	+4.3
Hazaribagh	71.6	72.9	+1.3	49.3	51.9	+2.6	60.5	62.4	+1.9
Darjeeling	46.8	53.4	+6.6	35.7	37.7	+2.0	41.3	45.5	+4.2

Rainfall.—A few showers have fallen in the Julpigoree, Cooch Behar, and Darjeeling Hills districts, but the falls are as a rule small. The largest fall is one of 0.63 inch at Kurseong and of 0.42 inch at Nagraokotta, but in all other cases the falls have been less than a quarter of an inch. In other districts, beyond a slight shower at Rungpore, there has been absolutely no rain.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 10th of January 1890 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May 1886.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa*	83.3	53.5	80.0	58.3	69.2	0	Nil	0.04	-0.04	0.0	0.1	-0.1	Nil	0.05	62.01	63.58
South-West Bengal	82.3	53.2	78.2	57.3	67.7	+2.5	Nil	0.08	-0.08	0.0	0.2	-0.2	Nil	0.11	52.37	61.07
East Bengal	81.1	55.8	77.3	59.2	68.4	+4.1	Nil	0.12	-0.12	0.0	0.2	-0.2	Nil	0.16	75.53	73.87
North Bengal*	81.4	52.7	77.8	56.3	67.0	+4.5	0.02	0.07	-0.05	0.2	0.2	0	0.02	0.07	73.14	69.94
North Behar	78.9	50.0	75.4	54.0	64.7	+3.3	Nil	0.06	-0.06	0.0	0.2	-0.2	Nil	0.08	57.06	48.27
South Behar	79.1	48.9	76.3	53.1	64.7	+3.4	Nil	0.07	-0.07	0.0	0.2	-0.2	Nil	0.08	44.16	43.43
Chutia Nagpur	76.0*	47.9*	73.0*	51.4*	62.2*	+1.6*	Nil	0.16	-0.16	0.0	0.3	-0.3	Nil	0.17	43.08	49.05

* Pooree, Julpigoree, Motiharee, Chupra and Chyebasse not included.

METEOROLOGICAL OFFICE, BENGAL;
The 14th January 1890.

A. PEDLER,
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 5th to 11th January 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
Jan. 1890 ...	5th ...	29.902	69.7	79.9	20.4	59.5	73.4	65.5	.524	60.3	63	Inches.
" " ...	6th ...	30.094	69.7	79.9	20.5	59.4	71.6	65.6	.552	61.7	71	"
" " ...	7th ...	.120	69.1	79.9	21.6	58.3	71.6	65.6	.552	61.7	71	"
" " ...	8th ...	.058	70.4	80.9	21.0	59.9	72.6	66.6	.574	62.9	72	"
" " ...	9th ...	.100	67.3	77.9	21.2	56.7	70.6	63.6	.496	58.7	66	"
" " ...	10th ...	.063	67.4	77.9	21.0	56.9	69.6	64.1	.526	60.4	73	"
" " ...	11th ...	.025	69.0	78.9	19.9	59.0	71.1	65.6	.558	62.1	73	"

The mean 10 A.M. pressure of the seven days 30.063
Inches.

The mean temperature of the seven days 68.9

The extreme variation of temperature 24.2

The maximum temperature 80.9

The mean 10 A.M. relative humidity of the seven days 70
%

The total fall of rain from 5th to 11th January 1890 Nil
Inches.

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;
The 13th January 1890.

MEMORANDUM.

THE total number of deaths registered during the month of November 1889 in the districts of Bengal amounted to 147,795, against 148,610 in the preceding month, 138,989 in November 1888, and an average of 155,663 in the corresponding months of the previous five years 1884—88. These figures correspond to annual death-rates of 26·88, 27·00, 25·44 and 28·20 respectively. It will thus be seen that while the death-rate for November 1889 was less than that of the preceding month and of the average mortality of November, it was in excess of the mortality of November 1888. Of the 147,795 deaths registered in November 1889, 76,066, or 27·84 per thousand, were males and 71,729, or 25·92 per thousand, were females.

2. The highest death-rates were returned in order of sequence from the following districts. For comparison the mortality in them during November 1888 is also exhibited:—

Districts.	Ratio per mille during—		Districts.	Ratio per mille during—	
	Nov. 1889.	Nov. 1888.		Nov. 1889.	Nov. 1888.
Serampore	47·04	29·76	Shahabad	33·60	39·48
Monghyr	46·32	32·04	Dinajpur	33·18	33·12
Jessore	37·92	33·24	Gya	32·76	33·48
Backerganj	37·08	27·96	Noakhali	32·40	29·04
Cuttack	37·08	18·80	Bhagulpore	32·28	32·04
Hughli	35·40	27·84	Khulna	32·16	32·76
Julpaiguri	35·40	35·64	Rajshahye	31·68	26·64
Poori	35·04	16·68	Howrah	29·64	24·00
Balasore	34·56	17·76			

3. The following statement compares the rates of mortality under the several heads of disease during the three periods, viz., November 1889, 1888, and the average for that month of the five years 1884—88:—

	Ratio per mille during—		
	November 1889.	November 1888.	Mean of previous five years, 1884—88.
Cholera	96	132	192
Small-pox	01	03	02
Fever	20·76	19·56	21·60
Bowel-complaints	72	60	84
Injury	24	01	24
Other causes	3·84	3·48	3·36

The only noticeable point indicated by the above figures is that cholera was considerably less fatal in November 1889 than in either of the past periods with which that month is compared, and that fever as compared with November 1888 has increased somewhat.

4. In the statement below the districts are exhibited in which the highest proportions of deaths were recorded:—

Cholera.		Fever.		Other Causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Cuttack	7·92	Monghyr	35·52	Poori	18·60
Serampore	5·40	Julpaiguri	33·24	Backerganj	10·68
Jessore	4·80	Dinajpur	31·80		
Poori	4·56	Jessore	30·48		
Balasore	4·56	Purneah	29·16		
Howrah	2·76	Rajshahye	28·92		
Faridpore	2·64	Gya	28·80		
		Serampore	28·56		
		Noakhali	27·96		
		Shahabad	27·96		
		Rungpore	26·64		
		Bhagulpore	26·40		
		Hughli	26·04		
		Khulna	25·32		
		Backerganj	25·32		
		Hazaribagh	24·36		
		Maldah	24·12		

5. The following table exhibits the death-rates among the five principal classes which comprise the population of the Bengal province, viz., Hindus, Mahomedans, Other classes, Buddhists, and Christians, arranged so as to show the graduated rates of mortality among them respectively:—

Classes.	Ratio per mille—	
	Nov. 1889.	Nov. 1888.
Hindus	27·48	24·84
Mahomedans	26·52	27·12
Other classes	16·20	18·60
Buddhists	16·48	15·84
Christians	14·64	15·48

6. Referring to mortality in relation to Age, infants under one year furnished a death-rate of 190·32 per 1,000 of the living, against 172·32 per 100 in November 1888, and old men of 60 years and upwards of 73·08 per 1,000, against 64·68 in November 1888. The mortality under the other groups of ages ranged from 38·52 per 1,000 among persons between 50 and 60 years of age to 12·00 per 1,000 among persons between 10 and 15 years. The corresponding proportions in November 1888 were 35·04 and 11·88 respectively.

W. H. GREGG, Dip. Publ. Health, Camb.,

Sanitary Commissioner for Bengal.

The 13th January 1890.

Statement showing the Results of the Registration of Deaths in the Districts in Bengal for the month of November 1889.

DIVISIONS.	DISTRICTS.	POPULATION.			DEATHS FROM—										DISEASE.										MORTALITY ACCORDING TO—				Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total population.
		Males.	Females.	Total.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Fever.	Bowel-complaints.	Injury.	Other diseases.	All causes.	COMPARISON WITH PREVIOUS PERIODS.		Males.	Females.	Ratio per 1,000 of population per annum.						
																			Ratio of deaths per 1,000 of population in the corresponding month of the previous year.	Deaths among—									
BENGAL.	Bahadur	608,225	724,228	1,332,453	88	...	2,233	62	13	401	2,514	24	...	10,20	38	10	2,53	8,13	10,88	1,451	1,376	86,98	82,89	114					
	Barrackpore	407,751	431,619	839,370	2	...	1,100	53	...	224	1,233	10	...	12,20	...	...	2,23	15,12	16,44	737	737	17,40	17,40	114			
	Bhadrabad	88,425	101,768	190,193	11	...	1,283	7	...	24	1,283	...	...	12,20	...	...	2,23	15,12	16,44	2,779	2,779	25,05	25,05	114	
	Bombay	1,343,153	1,777,370	3,120,523	114	...	4,084	80	...	853	5,551	11	...	19,44	...	...	5,55	15,12	16,44	2,779	2,779	25,05	25,05	114			
	Burdwan	1,115,005	1,317,385	2,432,390	10	...	1,410	160	...	26	1,410	...	...	19,44	...	...	5,55	15,12	16,44	2,779	2,779	25,05	25,05	114	
	Cuttack	174,566	177,569	352,135	103	...	1,410	160	...	26	1,410	...	...	19,44	...	...	5,55	15,12	16,44	2,779	2,779	25,05	25,05	114	
	Dacca	400,031	534,074	934,105	129	...	9,278	334	...	503	3,335	28	...	23,56	...	...	6,98	15,12	16,44	1,076	1,076	4,103	4,103	108			
	Dumraon	316,479	318,902	635,381	147	...	701	294	...	350	2,514	28	...	12,20	...	...	2,23	15,12	16,44	597	597	20,48	20,48	105			
	Farrukhabad	803,841	812,531	1,616,372	140	...	2,345	103	...	47	2,345	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	462,271	462,271	924,542	783	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
BENGAL.	Faridkot	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
BENGAL.	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
BENGAL.	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
BENGAL.	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	610,297	1,096,780	74	...	4,968	20	...	34	4,968	...	...	12,20	...	...	2,23	15,12	16,44	1,453	1,453	20,48	20,48	111	
	Ferozepore	486,483	61																										

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,
The 13th January 1890.

MEMORANDUM.

THE principal Municipalities in Bengal returned, during the week ending 28th December 1889, the birth and death-rates of 24 and 27.9 per 1,000 of population, respectively, as opposed to 25.2 and 30.2 per 1,000 in the preceding week ending 21st December, indicating a falling off in the registration of both births and deaths.

2. These events were returned in the highest proportions by the following Municipalities :—

Births.			Deaths.		
		Ratio per mille.			Ratio per mille.
Ranaghat	...	59.9	Poori	...	73.4
Utterpara	...	47.2	Serampore	...	68.7
Howrah	...	38.4	Narainganj	...	62.1
Serampore	...	35.3	Jessore	...	61.2
Hughli and Chinsurah	...	34.5	Utterpara	...	56.6
Rampore Beaulah	...	34.2	Ranaghat	...	53.9
Santipore	...	33.3	Darjiling	...	51.9
Narainganj	...	33.1	Hughli and Chinsurah	...	44.3
			Comillah	...	42.4
			Dacca	...	36.3
			Burdwan	...	33.6
			Howrah	...	31.5
			Purneah	...	31.2
			Gya	...	30.1

3. Referring to the specific diseases, there was a diminution of mortality from fever, while the fatal results from the other diseases exhibited only fractional differences—*vide* statement appended below :—

			Ratio per mille during the weeks ending—	
			28th December 1889.	21st December 1889.
Cholera	...	...	3.2	2.4
Small-pox	...	...	.4	.2
Fever	...	...	10.4	12.8
Bowel-complaints	...	...	4.8	5.2
Injury	...	...	.6	.5
Other causes	...	...	8.4	9.1

4. The following Municipalities returned conspicuously high mortality from cholera, small-pox, fever, bowel-complaints, and the unspecified diseases coming under the head of "Other causes" :—

Cholera.	Small-pox.	Fever.	Bowel-complaints.	Other causes.
Ratio per mille.	Ratio per mille.	Ratio per mille.	Ratio per mille.	Ratio per mille.
Narainganj ... 33.1	Poori ... 12.6	Darjiling ... 37.0	Serampore ... 23.6	Poori ... 27.3
Comillah ... 30.8		Ranaghat ... 35.9	Hughli and Chinsurah ... 14.8	Serampore ... 25.5
Chittagong ... 23.7		Poori ... 20.9	Poori ... 12.6	Dacca ... 14.9
Dacca ... 9.1		Purneah ... 20.8	Howrah ... 11.4	Gya ... 11.6
Howrah ... 6.3				

5. The death-rates according to Sex, Class and Age stood as shown below :—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	32.0	Christians	7.5	Under 1 year	200.8
Females	23.5	Hindus	28.6	1 and under 5 years	22.9
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	146	Mahomedans	27.0	5 " 10 "	11.3
		Buddhists	25.7	10 " 15 "	8.6
				15 " 20 "	18.0
				20 " 30 "	17.5
				30 " 40 "	19.3
				40 " 50 "	26.2
				50 " 60 "	32.9
				60 years and upwards	91.0

The 13th January 1890.

W. H. GREGG, Dip. Publ. Health, Camb.,
Sanitary Commissioner for Bengal.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending 28th December 1889.

DISTRICTS.		NAMES OF MUNICIPALITIES.		POPULATION.		BIRTHS.		MORTALITY ACCORDING TO—										Sex.												
				Total.		NUMBER OF—		RATIO PER 1,000 OF POPULATION PER ANNUM.		Ratio of male births to every 100 female births.		DEATHS FROM—						RATIO PER 1,000 OF POPULATION PER ANNUM.		Ratio of deaths per 1,000 of population per annum in the previous week.		DEATHS.		RATIO PER 1,000 OF POPULATION PER ANNUM.		Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population.				
												Disease.																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15																
Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Cholera.	Small-pox.	Typhoid.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Cholera.	Small-pox.	Typhoid.	Bowel-complaints.	Injury.	Other diseases.	All causes.	Males.	Females.	Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population.					
Burdwan	Burdwan	18,663	16,017	34,680	6	4	10	9.2	6.1	15.3	159	1	11	3	7	23	1.5	...	15.8	4.6	...	10.7	33.6	45.8	10	12	28.8	39.0	72	
Midnapore	Midnapore	16,947	16,433	33,380	11	5	16	17.0	7.7	24.8	290	...	6	3	7	16	...	...	9.3	4.8	...	10.8	24.8	17.9	5	11	15.4	34.4	44
Hughli	Hughli and Chinsurah.	15,558	15,920	31,478	12	9	21	19.7	14.8	34.5	133	1	12	9	5	27	1.6	...	19.7	14.8	...	8.2	44.3	72.2	16	11	22.3	30.1	144	
Serampore	Serampore	15,459	12,937	28,396	10	8	18	19.6	13.7	33.3	125	1	7	12	12	35	2.0	5.9	13.7	23.6	...	25.5	68.7	70.7	22	13	24.4	33.2	151	
	Utterpara	3,645	2,404	6,049	2	3	5	18.9	28.3	47.2	65	3	...	1	2	6	38.3	...	...	9.4	...	18.9	56.6	56.6	2	4	34.1	84.4	40
Howrah	Howrah	53,153	37,660	90,813	36	31	67	29.6	17.8	38.4	116	11	10	20	12	55	6.3	6	5.7	11.4	6	6.9	31.5	29.2	35	20	31.2	27.6	126	
	Bali	7,595	6,779	14,374	2	3	5	7.0	10.5	17.5	66	1	3	2	...	6	3.5	...	10.5	7.9	...	...	21.1	24.6	3	3	19.9	22.4	86
Nudda	Kishinagar	15,365	14,214	29,579	1	2	3	1.9	3.8	5.7	50	...	3	...	2	5	...	...	5.7	...	...	3.8	9.5	22.7	1	4	3.9	14.8	21
	Ranaghat	4,925	4,553	9,478	9	1	10	53.9	6.9	59.9	909	...	6	2	1	9	...	...	33.9	12.0	...	6.0	53.9	41.9	6	3	77.5	33.5	233
	Santipore	15,708	15,979	31,687	11	8	19	19.3	14.0	33.3	137	...	7	...	2	9	...	...	14.3	...	...	3.5	15.8	5.2	5	4	19.6	13.0	145
Jessore	Jessore	4,890	3,665	8,555	...	4	4	...	24.5	24.5	No male birth.	3	3	...	4	10	18.3	...	18.3	...	...	24.5	61.2	73.5	7	3	75.4	42.6	178
Rajahmundry	Rampore Beaulah	10,765	9,025	19,790	8	5	13	21.0	13.1	34.2	169	...	7	1	1	11	...	...	18.4	2.6	5.3	2.6	28.9	34.2	7	4	33.8	25.9	143
Darjiling	Darjiling	4,579	2,439	7,018	1	3	4	7.4	22.2	29.6	33	...	5	...	2	7	...	...	37.0	...	...	14.8	51.9	22.2	4	3	45.6	64.9	76
Dacca	Dacca	42,782	37,579	80,361	9	15	24	5.8	9.1	14.9	64	14	9	7	23	56	9.1	...	5.8	4.3	1.9	14.9	56.3	26.6	39	17	47.4	25.6	204	
	Narainganj	7,005	4,056	11,061	4	4	8	10.5	16.5	33.1	109	8	3	1	3	15	31.1	...	12.4	4.1	...	12.4	62.1	70.4	13	2	88.9	21.9	419	
Chittagong	Chittagong	13,240	8,750	21,990	...	...	...	9.4	...	9.4	No female birth.	10	1	...	1	12	23.5	...	2.3	...	...	2.3	28.2	30.5	10	2	39.0	11.8	354
Tipperah	Comillah	8,153	5,353	13,506	1	6	7	3.9	23.1	27.0	16	8	2	...	1	11	30.8	...	7.7	...	...	3.9	42.4	46.2	7	4	44.6	38.9	118
Faina	Faina City	78,762	81,475	160,237	21	21	42	6.8	10.1	16.9	67	2	18	12	1	19	62	3	...	5.8	3.9	6.2	16.9	14.0	29	23	19.1	14.7	186	
Gya	Gya	38,250	37,881	76,131	18	14	32	12.3	9.6	21.9	128	2	24	1	17	44	1.4	...	10.4	7	...	11.6	30.1	32.1	23	21	31.2	25.9	111	
Shahabad	Arrah	20,960	22,505	43,465	14	6	20	16.7	7.5	23.9	233	...	13	2	2	17	...	...	15.6	2.4	2.4	...	20.3	18.0	7	10	17.4	23.1	74
Moufferpore	Moufferpore	33,084	19,658	52,742	6	5	11	7.3	6.1	13.4	129	...	9	4	3	18	...	...	10.9	4.9	2.4	3.6	21.9	20.7	11	7	24.8	18.6	133
Durbhanga	Durbhanga	33,774	32,322	66,096	16	15	31	12.6	11.8	24.4	106	...	12	3	5	20	...	...	9.4	2.4	...	...	15.7	22.8	10	10	15.4	16.1	94
Sarus	Chupra	25,116	26,554	51,670	13	16	29	13.1	16.1	29.2	81	...	3	1	10	14	...	...	3.0	1.0	...	10.1	14.1	20.1	10	4	20.7	7.8	266
Bhagalpore	Bhagalpore	29,640	27,813	57,453	19	14	33	17.2	12.7	29.9	135	...	10	...	8.1	19.0	34.4	...	10.9	...	...	8.1	19.0	34.4	14	7	24.6	15.1	184
Monghyr	Monghyr	28,154	29,366	57,520	17	12	29	15.5	10.6	26.2	141	...	11	8	9	21	...	...	9.9	7.2	9	7.2	25.3	33.4	29	8	30.9	14.2	237
Purneah	Purneah	8,463	6,553	15,016	2	2	4	6.9	6.9	13.9	109	...	6	1	2	9	...	...	20.8	3.5	...	6.9	31.2	48.5	3	6	18.4	47.6	38
Poori	Poori	13,247	11,537	24,784	4	6	10	8.4	16.8	25.2	50	...	10	6	13	35	...	12.6	20.9	12.6	...	27.3	78.4	90.2	20	15	78.3	67.6	116	
Total	Total	850,986	810,588	1,661,574	237	235	472	11.4	11.4	24.0	110	65	213	59	12	172	570	3.2	4	16.4	4.8	6	8.4	27.9	50.2	339	231	32.0	23.5	189

13			14			15			16			MORTALITY ACCORDING TO—												
DISTRICTS.			CLASS.			DEATHS AMONG—			RATIO PER 1,000 OF POPULATION PER ANNUM.			DEATHS.			RATIO PER 1,000 OF POPULATION PER ANNUM.									
															Age.									

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

No. 10th, January, 1890.

W. H. GREGG, Dip. Publ. Health, Camb.,

Sanitary Commissioner for Bengal.

PUBLIC WORKS DEPARTMENT, BENGAL.

IRRIGATION BRANCH.

IRRIGATION OPERATIONS FOR THE OFFICIAL YEAR 1889-90.

Areas leased for Irrigation up to the end of October 1889.

CIRCLE.	DISTRICT.	CANAL.	Esti- mated full dis- charge.	Average discharge utilised in month.	Discharge utilised.	Approx- imate area of land irrigated during the year up to the end of the month.	Approx- imate area of land irrigated under irrigation up to the same date last year.	DETAILS OF AREAS LEASED.										RAINFALL, 1889-90.		RAINFALL, 1888-89.		REMARKS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
								Five years, all crops.	Five years, Kharif.	ANNUAL LEASES.					Grand Total.	During month.	Up to end of month.	During month.	Up to end of month.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
										Kharif.	Rabi.	Sugar- cane.	Bladot.	Hot- weather.						Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
ORISSA	Cuttack	Taldanda, 1st	1,342	442	189	10,483	8,945	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.	Inches.	Whole month discharging. 24 days discharging.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
		Taldanda, 2nd	566	239	240	27,748	23,007	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Machong	776	252	240	27,748	23,007	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Kandrapara	1,067	652-23	515-54	47,969	46,259	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.		Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Gobri	372-52	69-07	39-90	1,844	1,437	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.	Inches.		Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Gobri Extension	648	32-37	32-31	1,800	1,539	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.		Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Pattamondri	885	253-17	170-28	7,133	5,303	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.		Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		High Level, Range I.	608	201-91	212-85	18,340	16,343	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.		Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		High Level, Range II.	737-16	64-00	17-57	2,370	1,986	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.		Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		High Level, Range III.	737-16	611-05	593-00	35,749	11,310	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Inches.	Inches.		Inches.	Inches.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
SOUTH-WESTERN.	Midnapore	Total	133,829	116,480	156,294	42	5,805	156	111,655	169	60,898	4,332	312	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5	64,555	52,334	5

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 11th January 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 11TH JANUARY 1890.			WEEK ENDING SATURDAY, THE 11TH JANUARY 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	2,151	2,99,830	5,298	1,745	4,01,590	7,290
Jute ...	248	1,51,400	2,642	199	1,25,225	2,262
Firewood ...	161	93,775	1,363	147	81,425	1,207
Other articles ...	1,107	2,50,460	3,707	1,200	2,22,620	3,898
Total ...	3,667	7,95,465	13,010	3,291	8,30,860	14,147

NOTE.—The total amounts of tollage for the week ending the 4th January 1890 and the corresponding week of the previous year should be Rs. 11,963 and Rs. 11,693 instead of Rs. 21,963 and Rs. 11,963 as published at page 69 of the Supplement to the *Calcutta Gazette* of the 8th January 1890.

Eastern Bengal State Railway.

*Abstract of principal commodities carried over the Eastern Bengal State Railway during the month of
October 1889, as compared with the same month of the previous year.*

STAPLES.	1889.		1888.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1889.	1888.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal ...	6,440	2,226	8,310	2,190	8,666	10,410	.....	1,744
Cotton, raw ...	64	221	41	98	235	139	146	.....
Cotton twist and yarn—								
1.—European ...								
2.—Indian ...								
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles ...	2,720	77	2,822	207	2,797	3,029	.....	232
b.—In boxes ...								
2.—Indian—								
a.—In bales and bundles ...								
b.—In boxes ...								
Grains—								
2.—Rice ...	2,354	1,943	1,809	6,890	3,097	8,558	.....	4,861
3.—Others ...	760	2,380	1,610	4,553	6,140	6,105	.....	25
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed ...								
b.—Undressed ...								
2.—Skins of sheep, &c.—	8	664	10	889	672	879	.....	207
a.—Dressed ...								
b.—Undressed ...								
Jute—								
1.—Raw—								
a.—Screwed ...	141	12,295	1	9,670	12,295	9,671	2,624	.....
b.—Unscrewed ...	125	49,664	58	71,361	49,805	71,419	.....	21,614
2.—Gunny-bags and cloth ...		853	149	1,724	978	1,873	.....	895
Metals—								
1.—Copper, unwrought ...								
2.—Brass, unwrought ...								
3.—Brass and copper, wrought ...	703	146	890	95	849	985	.....	136
4.—Iron ...								
5.—Tin ...								
6.—Others ...								
Oils—								
2.—Kerosine ...	408	9	410	11	417	421	.....	4
3.—Others ...	212	24	163	34	236	189	47	.....
Oilseeds—								
1.—Linseed ...								
2.—Rape and mustard ...								
3.—Til or gingelly ...								
4.—Niger ...	90	781	175	1,708	871	1,883	.....	1,012
5.—Castor ...								
6.—Poppy ...								
7.—Others ...								
Provisions—								
2.—Betelnuts ...	99	772	121	427	871	548	323	.....
3.—Others ...	428	729	481	292	1,157	773	384	.....
Railway plant and rolling-stock ...	2,917	1,893	2,424	815	5,800	3,239	2,561	.....
Salt ...	3,138	26	3,289	29	3,164	3,318	.....	154
Sugar—								
1.—Drained ...	482	906	603	318	688	981	.....	293
2.—Undrained ...								
Tea—								
1.—Foreign ...		2,298	18	1,748	2,298	1,766	532	.....
2.—Indian ...								
Wood—								
1.—Timber ...	84	83	141	128	167	269	.....	102
2.—Firewood ...	1,989	.....	1,814	.....	1,989	1,814	175	.....
Tobacco ...	47	1,398	66	1,349	1,445	1,316	129	.....
All other articles of merchandise—								
1.—Unmanufactured ...	2,370	1,050	2,408	1,465	3,429	3,963	.....	543
2.—Manufactured ...	641	.....	606	.....	641	606	35	.....
Hay, straw, and wool (C. & S.-E. Section) ...								
Total ...	27,220	82,128	28,620	105,598	109,348	184,213	6,067	31,823

Comparative Statement of traffic, Eastern Bengal State Railway, for October 1889.

INCREASES.						Tons
Jute, screwed	...	...	...	...	...	2,624
Is due to extensive despatches during the month from Goalundo, Rungpore, Kaunia, and Haldibari chiefly.						
Hay, straw and wooloo	...	...	...	...	...	35
From Mogra Hat principally.	...	...	...	...	...
Firewood	...	...	...	...	...	175
From Bausara and Canning principally.	...	...	...	...	...
DECREASES.						
Coal	...	...	...	...	...	1,744
Due to sufficient stock for railway and flotilla purposes.						
Rice	...	...	...	...	...	4,861
This decrease is due to a partial failure of the crops.						
Jute, unscrewed	...	...	...	...	...	21,614
Heavy decrease is due to the dulness of the market, and an increase in the despatches of baled jute, and also to the jute crop having come down unusually earlier in 1888.						

CALCUTTA, the 30th December 1889.

F. P. QUINLAN,
Examiner of Accounts.**Bengal Central Railway.***Abstract of principal commodities carried over the Bengal Central Railway during the month of October 1889, as compared with the same month of the previous year.*

STAPLES.	1889.		1888.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1889.	1888.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal	1,014	1	964	...	1,015	968	47	...
Cotton, raw	1	1	2	...	2	2	...	...
Cotton twist and yarn—								
1.—European	...	...	...	...	...	...	...	...
2.—Indian	...	...	...	...	...	...	...	...
Cotton piece-goods—								
1.—European—								
a.—In bales and bundles	358	...	270	...	358	270	88	...
b.—In boxes	...	...	...	...	...	...	...	...
2.—Indian—								
a.—In bales and bundles	...	...	...	...	...	...	...	...
b.—In boxes	...	...	...	...	...	...	...	...
Grains—								
2.—Rice	127	28	6	314	155	320	...	165
5.—Others	82	93	10	139	175	198	...	23
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed	...	...	...	...	...	...	...	...
b.—Undressed	...	...	...	...	...	...	...	...
2.—Skins of sheep, &c.—	1	28	...	28	29	28	1	...
a.—Dressed	...	...	...	...	...	...	...	...
b.—Undressed	...	...	...	...	...	...	...	...
Jute—								
1.—Raw—								
a.—Screwed	...	...	...	26	...	26	...	26
b.—Unscrewed	...	5,428	...	12,021	5,428	12,021	...	6,593
2.—Gunny bags and cloth	4	1	3	...	5	3	2	...
Metals—								
1.—Copper, unwrought	...	...	...	...	...	...	...	...
2.—Brass, unwrought	...	...	...	...	...	...	...	...
3.—Brass and copper, wrought	...	...	...	...	...	...	...	...
4.—Iron	50	9	54	24	39	78	...	39
5.—Tin	...	...	...	...	...	...	...	...
6.—Others	...	...	...	...	...	...	...	...
Oils—								
2.—Kerosine	97	...	96	...	97	96	1	...
3.—Others	91	...	51	...	91	51	40	...
Oilseeds—								
1.—Linseed	...	...	...	...	...	...	...	...
2.—Rape and mustard	...	...	...	...	...	...	...	...
3.—Til or gingelly	...	...	...	...	...	...	...	...
4.—Niger	31	45	91	97	76	188	...	112
5.—Castor	...	...	...	...	...	...	...	...
6.—Poppy	...	...	...	...	...	...	...	...
7.—Others	...	...	...	...	...	...	...	...
Provisions—								
2.—Betelnuts	...	739	3	386	739	389	350	...
3.—Others	7	58	40	24	65	64	1	...
Railway plant and rolling-stock	35	20	94	57	55	151	...	96
Salt	217	4	228	...	221	228	...	7
Sugar—								
1.—Drained	...	...	...	...	...	...	...	...
2.—Undrained	15	171	16	295	180	511	...	125
Wood—								
1.—Timber	...	...	24	25	...	49	...	49
2.—Firewood	...	...	...	...	...	...	...	...
Tobacco	16	36	28	22	52	50	2	...
All other articles of merchandise—								
1.—Unmanufactured	...	...	...	...	...	...	...	...
2.—Manufactured	395	179	390	298	574	598	...	24
Total	2,531	6,841	2,333	13,756	9,563	16,089	532	7,259

Comparative Statement, Bengal Central Railway, for October 1889.

INCREASES.						Tons.
Coal	...	...	...	...	...	138
This slight increase is probably due to a greater demand required for railway and flotilla consumption.						
DECREASES.						
Jute	...	...	...	...	...	6,846
There was no great demand, and the market was steadily dull throughout this month.						

CALCUTTA, the 7th January 1890.

F. P. QUINLAN,
Examiner of Accounts.

EAST INDIAN RAILWAY.

Statement of Goods Traffic in Staples carried during the four weeks ended 23rd November 1889,
as compared with the same period of 1888.

STAPLES.	1889.		1888.		Increase.		Decrease.	
	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.	Weight.	Freight.
	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.	Mds.	Rs.
ANIMALS, LIVING	No.		No.		No.		No.	
Horses, ponies, and mules	635	8,810	637	7,533	2	1,277		
Cattle	1,088	5,144	563	3,776	525	1,368		
Sheep and goats	4,026	3,232	3,215	2,237	811	995		
Other kinds								
BORNS								
Canes and rattans	1,115	778	314	257	801	521		
Casouthouse (Indian-rubber)	95	75	97	72	2	3		
Chinese and Japanese ware								
Coal and coke, up	5,62,399	1,45,517	5,20,389	1,71,517	41,910		51	59
Ditto, down	19,55,617	2,64,037	24,03,727	3,30,507	4,48,110		4,48,110	26,000
Cotton, raw	2,08,880	1,04,327	68,283	6,312	1,42,597	44,115		75,470
Twist and yarn (European)	7,769	7,044	7,083	9,180	76			240
Ditto (Indian)	12,997	7,483	14,390	14,390				1,623
COTTON, MANUFACTURED.								
Piece-goods (European)	1,55,550	1,75,205	1,03,390	2,27,389			37,840	47,184
Ditto (Indian)	22,547	20,352	27,709	25,036			5,153	5,578
Asafoetida	387	252	661	462			274	210
Other sorts, not intoxicating	1,433	1,690	1,572	1,731			139	45
DRUGS AND MEDICINES.								
Intoxicating drugs (other than opium, i.e., arsenic, bhang, ganja, and charas, &c.)	735	528	610	456	125	72		
Indigo	47,909	1,02,751	29,501	60,207	18,408	42,544		
DYEING MATERIALS.								
Madder or marjiti								
Safflower	110	19	140	39			56	11
Turneric	7,460	5,546	7,606	5,549			206	
Other kinds	5,881	2,604	6,277	2,880			396	
Earthenware and porcelain	742	1,835	752	1,835			10	18
Jute, raw	65,402	10,005	1,50,979	24,294			85,577	17,626
Do., manufactured (gunny)	59,636	32,416	60,139	32,621			503	205
FIBROUS PRODUCTS.								
Other fibres, raw	20,523	5,793	27,341	6,568			6,818	715
Ditto, manufactured	1,149	419	1,224	390			74	
Cocoanuts	6,401	2,239	5,532	2,591			151	697
FRUITS & NUTS								
All other kinds	41,538	37,329	50,998	31,506	4,540	5,014		
Wheat	2,21,665	70,365	3,63,063	89,475			1,41,400	18,540
Gram and pulses	1,77,728	53,308	2,83,138	87,658			55,410	29,340
Rice, husked	4,65,558	59,929	4,90,008	102,479			30,480	32,500
Do., unhusked	39,812	5,161	74,882	8,253			35,070	8,070
Other rain and spring crops	1,47,572	29,167	1,57,832	28,807			10,480	
GOVERNMENT STORES								
Gums and resins	20,163	3,368	23,525	26,456			3,362	1,067
Hides and skins	5,617	8,963	4,503	3,274	934	709		
HIDES & SKINS.								
Hides of cattle	50,158	24,788	53,299	28,398			3,132	4,210
Skins of sheep, goats, and small animals	12,687	5,067	12,493	6,624			406	1,559
Horns	636	138	1,148	552			512	414
LAC								
Lac, dye	874	193	574	193				
Do., shell	11,018	8,492	10,399	13,354			5,681	4,867
Do., stick and other kinds	16,585	5,170	21,420	6,188			4,841	1,019
Leather, unmanufactured	2,773	3,888	2,646	4,099			283	631
Ditto, manufactured	2,529	4,134	3,305	6,079			905	1,925
LIQUORS								
Mate	15,857	220	875	183			502	908
Minerals	605	220	375	183				
METALS AND MANUFACTURES OF.								
Brass and copper	1,18,102	20,855	88,381	17,146	29,721	3,699		
Iron	28,948	21,818	13,653	9,979	15,295	12,739		
Other metals	85,566	45,675	1,05,867	54,444			19,941	5,774
Oils	7,601	6,763	4,733	3,743	3,868	3,020		
Opium	55,061	50,789	55,027	28,506	4,954	28,443		
Paints and colours	12,102	13,781	32,555	32,412			20,135	18,631
Provisions	15,112	2,085	2,771	2,049	12,641	56		
Ghee	23,902	16,559	22,289	13,800	1,613	2,754		
Other kinds	8,434	7,001	8,648	8,697			224	1,396
Railway materials, Construction Account	60,867	1,607	82,290	2,676			21,392	979
Ditto, Foreign	1,74,831	65,297	1,04,336	62,32	20,566	2,886		
Salt	6,47,776	1,22,085	5,33,227	1,11,297	1,14,549	10,858		
SALTPETRE, &c.								
Saltpetre	65,983	27,215	64,674	22,133	12,509	5,082		
Other saline substances	10,565	3,798	14,808	4,792			6,503	804
Linseed	1,49,360	48,149	3,85,700	1,10,867			2,34,340	61,820
Mustard and rape	1,44,391	32,870	1,39,611	27,376	13,780	5,500		
SEEDS								
Til or sunjelly	3,818	1,041	7,068	1,941			3,190	900
Other oilseeds	71,901	23,094	84,501	24,894			12,606	990
Indigo seed	2,954	929	5,454	1,839			2,490	416
Tea seed								
Other kinds	94,144	19,585	37,384	9,295	56,760	10,290		
Silk, raw	1,354	908	1,474	1,030			120	65
Do., manufactured (European)								
Do., ditto (Indian)	233	286	189	188	44	98		
Spices	15,907	7,838	10,789	7,331	5,157	526		
Stone and marble	1,12,656	14,518	80,008	11,715	26,498	2,803		
SUGAR								
Sugar, refined	64,348	21,091	75,475	20,604			11,127	
Do., unrefined	1,21,989	85,611	53,191	16,714	68,798	18,697		
Tea, Indian	4,134	4,519	4,874	6,344			740	2,055
Do., Foreign	66	41	55	36				
TEA								
Tea, 1889	33,766	14,963	27,391	10,579	6,377	4,393		
Timber	26,289	5,065	19,509	2,992	6,771	2,161		
Firewood	20,910	1,382	12,804	957	5,056	439		
Wool, raw	1,469	716	1,384	1,688			475	964
Do., manufactured (European)								
Do., manufactured (Indian)	4,412	5,575	5,903	7,002			950	1,637
Shawls								
All other articles of merchandise	2,14,976	1,67,878	2,72,429	1,76,691			57,453	18,713
Bones	22,135	5,902	22,163	6,112			28	140
Porcelain	37,093	24,408	28,032	16,130	9,061	10,018		
Total	68,27,074	21,06,491	74,40,354	22,74,257	6,54,900	2,22,451	13,71,150	3,90,307

General remarks on the fluctuation of staples carried over the East Indian Railway during four weeks ended 23rd November 1889.

INCREASES.

Cotton.—The increase under this head is due to despatches of cotton from stations in the North-Western Provinces to Calcutta for export and to Bombay for local consumption.

Indigo.—Due to the season this year being earlier than last.

Fruits, other kinds.—This was in betelnuts from Howrah.

Minerals.—Principally in lime from Rajband, Durgapur, Ranegunge, and Asansol on the chord line and from Katni on the Jabulpore line for Calcutta.

Brass and Copper.—This increase was in despatches of the unmanufactured article from Howrah and of manufactured ware from Mirzapur; the corresponding month of 1888 showed a heavy decline in the brass and copper traffic owing to the high rates then prevailing.

Oil.—This increase was in kerosine oil from Howrah.

Potatoes.—Due chiefly to despatches of hill potatoes from the North-Western and Oudh and Rohilkhand Railways.

Other rain and spring crops.—There was a decrease in the weight carried attended with an increase in earnings, and this was principally due to there having been in 1888 a heavy short-distance traffic coming to us from the Bengal and North-Western Railway.

Railway material, Foreign.—The increase was due to considerable despatches, during the early portion of the month, of permanent-way materials for the Delhi-Umballa-Kalka Railway.

Salt.—This was chiefly in the despatches of salt from Howrah.

Saltpetre.—The increase was principally from Patna and from the Bengal and North-Western and Oudh and Rohilkhand Railways to Howrah.

Stone.—Chiefly in despatches of road metal from Pakur on the loop line to Calcutta.

Sugar and jaggree.—In earnings the largest increase was from stations on the Patna-Gya line, which despatch principally to the Great Indian Peninsula Railway *via* Jabulpore. In weight carried we dealt with a heavy cross and short-lead traffic from the Oudh and Rohilkhand Railway *via* Aligarh and the North-Western Railway.

Tobacco.—Principally from Barh and the Tirhoot State Railway.

DECREASES.

Coal and coke.—In upwards traffic there was an increase in the weight carried attended with a decrease in the earnings, and this was due to the shorter average lead. The decrease in the downward traffic is due to consignments for export having been held back owing to a difficulty in obtaining steamers in which to ship coal.

Piece-goods.—The decrease was principally in despatches from Howrah, which were very brisk during the corresponding period of 1888.

Jute, raw.—The decrease was principally in traffic from the Assam-Bihar State Railway *via* Sahebgunge owing to the jute crop in the Purneah district having suffered this year owing to floods.

Wheat.—Due to there being no demand for export to Europe.

Gram and Pulses.—There were exceptional despatches last year from Delhi and the Punjab to Howrah to meet requirements on the east coast, where a famine was apprehended.

Rice (husked and unhusked).—There was an increase in the downward traffic, but despatches up-country fell off owing to there having been an exceptional demand last year.

Hides and skins.—The decrease was principally in despatches from the Tundla district to Howrah owing to want of demand.

Lac.—Principally in shellac from Mirzapur to Howrah.

Iron.—The decrease was principally in consignments from the Barakar Iron Works and in despatches of sugarcane rollers from Delhi and Delhi-Shahdara.

Opium.—Despatches were held over by the Government authorities owing to unsettled weather.

Seeds.—The decrease was chiefly in linseed, and was due to exhaustion of stocks.

N. ST. L. CARTER, *Traffic Manager.*

TRAFFIC MANAGER'S OFFICE, CALCUTTA, 8th January 1890.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for the last 10 days of December 1889, on 1,525½ miles open

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period	306,180	8,99,349 10 0	35,75,782 30	8,29,203 0 0	36,930 14 0	12,65,492 8 0	93,300½	118,204	211,504½
Or per mile of railway	.....	261 12 6	.....	543 9 0	24 3 5	829 8 11	.....	.....	.....
For previous 25 weeks of half-year	5,995,471	67,81,948 1 0	5,38,80,113 30	1,22,49,471 10 0	2,37,399 7 5	1,92,68,819 2 5	1,645,440½	2,034,427½	3,679,867½
Total for 26 weeks	6,301,650	71,81,297 11 0	5,74,55,896 20	1,30,78,674 10 0	2,74,339 5 5	2,05,34,311 10 5	1,738,750½	2,152,631½	3,891,382
COMPARISON.									
Total for corresponding period of previous year	275,692	3,84,276 2 1	36,63,108 30	8,30,471 14 5	—87,862 14 8	11,35,835 1 10	82,320½	128,542½	210,862½
Per mile of railway corresponding period of previous year	.....	251 14 5	.....	550 4 8	—57 9 6	744 9 7	.....	.....	.....
Total to corresponding date of previous year	6,076,065½	69,11,491 0 6	6,25,84,315 30	1,33,58,691 11 3	3,44,838 5 6	2,00,15,021 1 3	1,712,728½	2,186,443½	3,899,171½

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE LAST 9 DAYS OF DECEMBER 1889.			RECEIPTS FOR THE LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1,329½	11,35,835	745	1,525½	12,65,493	830	1,525½	3,25,39,726	547	1,525½	3,25,61,067	547	21,341	.....

PATNA-GYA STATE RAILWAY

Approximate Return of Traffic for the last 10 days of December 1889, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period ...	19,507	11,357 0	52,079 0	3,459 9 0	50 0 0	14,825 0 0	2,547	1,892	4,439
Or per mile of railway ...	341	198 2 9	910 20	60 2 1	0 14 0	259 2 10	.....	.....	.....
For previous 25 weeks of half-year ...	*146,835	*1,94,173 6 0	†11,12,808 20	†57,769 13 0	†1,062 9 3	2,53,605 12 3	39,903½	18,186	58,089½
Total for 26 weeks ...	366,342	2,05,508 13 0	11,64,887 20	61,269 6 0	1,712 9 3	2,65,430 12 3	42,430½	20,078	62,508½
COMPARISON.									
Total for corresponding period of previous year ...	16,286	8,977 15 4	50,746 30	2,661 14 0	652 12 9	19,292 10 1	2,392	894	3,216
Per mile of railway corresponding period of previous year ...	285	156 15 4	887 10	46 8 7	11 6 7	214 14 6	.....	.....	.....
Total to corresponding date of previous year ...	347,173½	1,90,802 3 0	10,81,477 30	61,963 9 0	2,067 1 6	2,54,831 14 0	48,059	17,970	66,029

* Added number of passengers 7,745 and Rs. 5,257 }
 † Ditto maunds 53,260 " 801 } on account of differences between the approximate and audited returns to week ended 23rd November 1889.
 ‡ Ditto " 32 }

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE LAST 9 DAYS OF DECEMBER 1889.			RECEIPTS FOR THE LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.		TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.		Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Mean mileage worked.	Total receipts.	Per mile worked.	
	Rs.	Rs.		Rs.	Rs.		Rs.		Rs.	Rs.	Rs.
57½	12,293	215	57½	14,825	259	57½	3,68,758	57½	*3,82,431	171	13,673

* Added Rs. 6,145 on account of difference between the approximate and audited figures to week ended 23rd November 1889.

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for the last 10 days of December 1889, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period ...	22,680	5,936 12 0	10,691 20	424 6 0	10 0 0	6,371 2 0	1,296	90	1,386
Or per mile of railway ...	.....	266 13 2	.....	19 1 2	0 7 2	286 5 6	.....	.....	.....
For previous 25 weeks of half-year ...	*440,748	*1,67,983 2 0	†2,35,232 10	†6,849 1 0	†153 3 6	1,14,992 6 6	22,958	2,112	25,070
Total for 26 weeks ...	463,428	1,15,924 14 0	2,45,123 30	7,273 7 0	163 3 6	1,21,563 8 6	24,254	2,202	26,456
COMPARISON.									
Total for corresponding period of previous year ...	21,534½	5,519 0 0	8,422 10	370 5 0	13 10 6	5,902 15 6	1,180	74	1,254
Per mile of railway corresponding period of previous year ...	.....	240 0 9	.....	16 10 3	0 9 10	265 4 10	.....	.....	.....
Total to corresponding date of previous year ...	464,451½	1,14,989 15 5	1,85,328 20	5,371 11 0	182 6 0	1,20,535 0 5	21,258	1,284	22,542

* Added number of passengers 1,150 and deducted Rs. 614 }
 † Ditto maunds 11,579 " and " 57 } on account of differences between the approximate and audited returns to week ended 23rd November 1889.
 ‡ Ditto " 6 }

Approximate Statement of gross receipts of the Tarkeessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE LAST 9 DAYS OF DECEMBER 1889.			RECEIPTS FOR THE LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.		TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.		Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Mean mileage worked.	Total receipts.	Per mile worked.	
	Rs.	Rs.		Rs.	Rs.		Rs.		Rs.	Rs.	Rs.
22½	5,913	265	22½	6,371	286	22½	2,06,882	22½	*2,05,966	236	2,886

* Deducted Rs. 651 on account of difference between the approximate and audited figures to week ended 23rd November 1889.

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTIONS.)

Approximate Return of Traffic for last 10 days of December 1889, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILE RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for last 10 days ...	182,780	1,05,310 0 0	8,57,090 0	2,10,100 0 0	31,520 0 0	3,55,930 0 0	33,000	47,000	80,000
Or per mile of railway ...	245	141 0 0	1,147 0	293 0 0	118 0 0	452 0 0	.....	.....	.....
For previous 25 weeks of half-year ...	3,553,408	16,58,444 0 0	1,50,46,754 0	40,47,210 0 0	4,41,127 0 0	*61,46,781 0 0	522,766	745,691	1,268,457
Total for 26 weeks ...	3,776,188	17,63,754 0 0	1,68,03,846 0	42,66,310 0 0	4,72,647 0 0	63,62,711 0 0	585,766	793,691	1,379,457
COMPARISON.									
Total for corresponding 9 days of previous year ...	171,372	70,903 0 0	8,89,715 0	2,38,181 0 0	50,650 0 0	3,59,743 0 0	29,969	46,170	76,139
Per mile of railway corresponding period of previous year ...	255	105 0 0	1,322 0	354 0 0	136 0 0	495 0 0	.....	.....	.....
Total to corresponding date of previous year ...	3,575,846	16,13,140 0 0	1,62,61,090 0	42,02,141 0 0	4,71,636 0 0	62,86,917 0 0	548,261	807,717	1,355,978

* Audited up to week ending 23rd November 1889.

† Excluding steamer earnings.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR LAST 9 DAYS OF DECEMBER 1888.			RECEIPTS FOR LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
673	Rs. 3,59,743	535	747	Rs. 3,55,940	477	673	Rs. 82,42,389	314	722	*86,38,163	307	Rs. 5,95,774	.....

* Audited up to week ending 23rd November 1889.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for last 10 days of December 1889, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for last 10 days ...	32,340	15,250 0 0	45,800 0	3,510 0 0	500 0 0	19,350 0 0	5,500	3,000	8,500
Or per mile of railway ...	259	122 0 0	367 0	28 0 0	5 0 0	155 0 0	.....	.....	.....
For previous 25 weeks of half-year ...	680,877	2,42,726 0 0	13,82,362 0	1,25,007 0 0	5,480 0 0	*3,75,279 0 0	80,693	56,438	146,131
Total for 26 weeks ...	722,317	2,67,976 0 0	14,28,422 0	1,28,607 0 0	6,046 0 0	3,92,629 0 0	95,193	59,458	154,651
COMPARISON.									
Total for corresponding last 9 days of previous year ...	28,350	15,398 0 0	61,810 0	3,510 0 0	200 0 0	19,168 0 0	3,310	4,161	7,471
Per mile of railway corresponding period of previous year ...	227	123 0 0	494 0	28 0 0	2 0 0	153 0 0	.....	.....	.....
Total to corresponding date of previous year ...	694,535	2,57,980 0 0	15,05,021 0	1,44,205 0 0	2,168 0 0	3,84,353 0 0	93,625	65,942	159,567

* Audited up to week ending 23rd November 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR LAST 9 DAYS OF DECEMBER 1888.			RECEIPTS FOR LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
125	Rs. 19,168	153	125	Rs. 19,350	155	125	Rs. 5,46,155	112	125	*5,72,477	117	Rs. 26,322	.....

* Audited up to week ending 23rd November 1889.

DACCA STATE RAILWAY.

Approximate Return of Traffic for last 10 days of December 1889, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for last 10 days ...	24,060	8,280 0 0	50,540 0	5,490 0 0	230 0 0	14,000 0 0	3,600	3,300	6,900
Or per mile of railway ...	280	96 0 0	588 0	64 0 0	3 0 0	163 0 0	.....	.....	.....
For previous 25 weeks of half-year ...	585,483	1,26,578 0 0	7,39,690 0	62,298 0 0	5,191 0 0	*1,94,067 0 0	62,670	22,418	85,088
Total for 26 weeks ...	409,543	1,34,858 0 0	7,90,230 0	67,788 0 0	5,421 0 0	2,08,067 0 0	66,270	25,718	91,988
COMPARISON.									
Total for corresponding last 9 days of previous year ...	19,805	6,309 0 0	38,935 0	3,734 0 0	184 0 0	10,227 0 0	3,100	858	3,958
Per mile of railway corresponding period of previous year ...	224	73 0 0	453 0	44 0 0	2 0 0	119 0 0	.....	.....	.....
Total to corresponding date of previous year ...	574,430	1,19,101 0 0	4,16,548 0	34,465 0 0	4,917 0 0	1,58,483 0 0	65,864	17,196	83,060

* Audited up to week ending 23rd November 1889.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR LAST 9 DAYS OF DECEMBER 1888.			RECEIPTS FOR LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	10,227	119	86	14,000	163	86	2,25,474	67	86	*2,53,234	84	59,760	.....

* Audited up to week ending 23rd November 1889.

NALHATI STATE RAILWAY.

Approximate Return of Traffic for last 10 days of December 1889, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	4,158	1,592 0 0	24,123 0	1,328 0 0	29 0 0	2,949 0 0	727	363	1,090
Or per mile of railway ...	153	58 0 0	885 0	49 0 0	1 0 0	108 0 0	.....	.....	.....
For previous 24 weeks of half-year ...	79,299	28,440 0 0	2,36,288 0	14,949 0 0	1,565 0 0	44,954 0 0	12,652	10,146	22,798
Total for the half-year ...	83,367	30,032 0 0	2,60,411 0	16,277 0 0	1,594 0 0	47,903 0 0	13,379	10,509	23,888
COMPARISON.									
Total for corresponding period (for last 9 days) of previous year ...	3,639	1,367 0 0	18,126 0	1,066 0 0	15 0 0	2,448 0 0	654	595	1,259
Per mile of railway corresponding week of previous year ...	134	50 0 0	665 0	39 0 0	1 0 0	90 0 0	.....	.....	.....
Total to corresponding date of previous year ...	279,360	28,409 0 0	3,09,026 0	18,211 0 0	2,103 0 0	48,813 0 0	12,278	11,686	23,964

a Includes figures for supplementary adjustments.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR LAST 9 DAYS OF DECEMBER 1888.			RECEIPTS FOR LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	2,448	90	27½	2,949	108	27½	275,241	73	27½	73,728	71	.....	1,519

a Includes figures for supplementary adjustments.

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for last 10 days of December 1889, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	51,539	22,556 0 0	2,78,064 0	82,074 0 0	6,237 0 0	61,467 0 0	7,624	10,465	18,089
Or per mile of railway ...	188	83 0 0	1,019 0	120 0 0	4 0 0	297 0 0*	.....	.....	.....
For previous 24 weeks of half-year ...	1,002,673	3,69,228 0 0	42,48,973 0	4,28,462 0 0	95,029 0 0	8,93,319 0 0	132,558	137,297	269,855
Total for the half-year ...	1,054,012	3,91,784 0 0	45,27,057 0	4,61,136 0 0	1,01,966 0 0	9,54,786 0 0	140,182	147,762	287,944
COMPARISON.									
Total for corresponding period (for last 9 days) of previous year	43,216	16,519 0 0	1,45,789 0	14,247 0 0	3,188 0 0	33,954 0 0	7,304	5,389	12,693
Per mile of railway corresponding week of previous year	158	61 0 0	534 0	52 0 0	1 0 0	114 0 0*	.....	.....	.....
Total to corresponding date of previous year ...	21,002,827	3,53,539 0 0	33,70,141 0	3,69,611 0 0	88,713 0 0	7,51,863 0 0	129,971	140,865	270,836

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."
 a Includes figures for supplementary adjustments.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR LAST 9 DAYS OF DECEMBER 1888.			RECEIPTS FOR LAST 10 DAYS OF DECEMBER 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 31ST DECEMBER 1888.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 31ST DECEMBER 1889.			Total increase in 1889-90.	Total decrease in 1888-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	33,954	124	273	61,467	225	263'68	212,49,503	125	273	15,79,154	143	2,29,651	.....

a Includes figures for supplementary adjustments.

[REGISTERED No. 29.]

No. 4 of 1890.



SUPPLEMENT TO
The Calcutta Gazette.

WEDNESDAY, JANUARY 22, 1890.

OFFICIAL PAPERS.

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Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 18th January, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL.			
<i>Western Districts.</i>			
BURDWAN DIVS.	1 Burdwan Jan. 18, '90	Nil	Weather—rather warm. Harvesting of <i>amun</i> over. Prospects of <i>rubbi</i> not good everywhere. Prospects of potato and sugarcane good. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Burdwan 15½ Culna 16 Cutwa 15½ Raneegunge 19 </div> } per rupee.
	2 Bankoora „ 18, '90	Nil	Weather seasonable. Threshing of <i>amun</i> rice going on. <i>Rubbi</i> prospects good. Pressing of sugarcane commenced in the Bishenpore subdivision; outturn nearly average. Common rice 21 seers per rupee at Sudder and 18 seers at Bishenpore.
	3 Birbhum „ 18, '90	Nil	Prospects of crops excellent. Price of rice 16½ seers per rupee at Soory and 18 seers at Rampore Hât.
	4 Midnapur „ 18, '90	Nil	Weather—seasonable. Rice harvest in the Sudder subdivision completed with 12 annas outturn, but still going on in Contai and Tamluk. Prices of rice:— <div style="float: right; text-align: right;"> Srs. Sudder 16 Contai 24 (new) Tamluk 18 Ghatal 18 </div> } per rupee.
	5 Hooghly „ 18, '90	Nil	Weather—cold in the morning, but close at other times. Harvesting of <i>amun</i> paddy completed. <i>Rubbi</i> very hopeful. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Ch. Sudder 12 0 Jehanabad 18 7 </div> } per rupee.
	Howrah „ 18, '90	Nil	Weather—warm for the season. State and prospects of crops good. <i>Amun</i> is still being harvested. Prices of common rice:— <div style="float: right; text-align: right;"> Srs. Howrah 12½ Uluberya 15½ </div> } per rupee.
	<i>Central Districts.</i>		
	6 24-Pergha Jan. 18, '90	Nil	Weather—good and seasonable, but sometimes foggy. The force of winter is gradually fading. Harvesting of <i>amun</i> crop nearly completed except on low lands. Outturn nearly 16 annas. Winter crops doing well. Price of common rice 15 to 16 seers a rupee.
	7 Nuddea „ 18, '90	Nil	Weather—seasonable. Prospects of winter crops on the whole fair. <i>Kalai</i> and <i>mung</i> are being harvested.
	8 Khoolna „ 18, '90	Nil	Weather—seasonable. <i>Amun</i> harvest still progressing; outturn good. Winter crops doing well.
PRESIDENCY DIVS.	9 Jessore „ 18, '90	Nil	Weather—cool and foggy. <i>Amun</i> harvest coming to a close. Winter crops doing fairly well. Prices of rice stationary.
	10 Moorsshedabad „ 17, '90	Nil	Weather—fine and cold with passing clouds. Wind generally north-west. <i>Amun</i> harvesting nearly over. <i>Rubbi</i> promises well.
	11 Dinagep „ 18, '90	Nil	Weather—cloudy during early part of week. Fogs continue. Rice prospects favourable. The mustard crop in the subdivision is expected to be very poor. Harvesting and pressing of sugarcane continue.
	12 Rajshahye „ 18, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> crop still continues with a good outturn. Nowgong reports a bumper crop. <i>Rubbi</i> crops are tolerable. Ganja promising well at Nowgong. Rice sells at 16 seers 10 chittacks per rupee.
	13 Rungpur „ 18, '90	Nil	Weather—seasonable. Sugarcane is still being cut with good results. Mustard is ripe in some places. Land is being prepared for <i>aus</i> and jute sowings.
	14 Bogra „ 18, '90	Nil	Weather—nights cold, days hot, and mornings foggy. One-eighth of the whole <i>amun</i> crop still remains to be reaped. Other crops are in a fairly good state and are being reaped. Price of common rice 22 seers a rupee at head-quarters.
	15 Pubna „ 18, '90	Nil	Weather—seasonable. <i>Amun</i> below average in the Sudder subdivision: it is still being reaped. Sugarcane deficient. Mustard expected to be a 12-anna crop. Cold-weather crops doing well.
	16 Darjeeling „ 18, '90	Nil	Weather—very cold and foggy. Wheat and barley are progressing favourably; other winter crops are doing well.
	17 Julpigoree „ 18, '90	Nil	Weather—cold and fair. Cutting of <i>haimanti</i> paddy almost completed; outturn good. No change in prices.
	<i>RAJSHAHY DIVS.</i>		

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divs.	18 Dacca Jan. 18, '90	Nil	Weather—seasonable. Sowing of <i>boro</i> paddy continues. Winter crops doing well. <i>Mung</i> , <i>maskalai</i> and mustard are being gathered. Fodder is available. No special change in the prices of food-grains. Common rice sold at from 14 to 17 seers 12 chittacks per rupee.
	19 Farredpur „ 18, '90	Nil	Weather—seasonable. Mornings foggy. Prospects of <i>rubbi</i> crops fair. Outturn of sugarcane and date-tree juice not satisfactory. Ordinary rice selling at 15½ seers per rupee in Sudder, 17 seers in Goalundo, and 15 seers in Madaripore.
	20 Backergunge „ 18, '90	Nil	Weather—cool with foggy mornings. Prospects of crops good. Harvesting of <i>amun</i> nearly completed. Common (new) rice is selling at 16 seers a rupee.
	21 Mymensingh „ 18, '90	Nil	Weather—mornings foggy, but cold and clear in the days. Harvesting of <i>amun</i> paddy nearly over. Mustard seeds are being gathered. <i>Rubbi</i> crops in good condition. <i>Boro dhan</i> is being transplanted. Common rice is selling at 12 seers 13 chittacks per rupee.
Chittagong Divs.	22 Chittagong „ 18, '90	Nil	Weather—seasonable. Outturn of <i>amun</i> fourteen annas. Prospects of winter crops good.
	23 Noakholly „ 18, '90	Nil	Weather—seasonable. Harvesting of <i>amun</i> completed; outturn reported to be 16 annas, and in Chagalnaya police-station 12 annas. <i>Rubbi</i> crops doing well.
	24 Tipperah „ 18, '90	Nil	Weather—seasonable. Winter crops thriving well. <i>Boro</i> paddy is being transplanted.
	25 Chittagong Hill Tracts „ 17, '90	Nil	Weather—very cold. Foggy up to 10 a.m. in the morning. Tobacco, mustard, and chillies progressing. Outturn of cotton crop only four annas.
	Hill Tipperah Jan. 18, '90	Nil	Weather—rather a little warm for the season. Harvesting of <i>amun</i> paddy nearly over. Mustard is being gathered. Tobacco and chillies doing well.
BEHAR.			
Patna Divs.	26 Patna „ 18, '90	Nil	Weather—cold. <i>Rubbi</i> crops progressing well, but rain is wanted. Mustard promising. Prospects of poppy favourable. Prices of food-grains almost stationary.
	27 Gya „ 18, '90	Nil	Weather—seasonable. Harvesting of paddy continues. <i>Rubbi</i> and poppy doing well, but rain is wanted in some places. Food-stocks sufficient.
	28 Shahabad „ 18, '90	Nil	Weather—inclined to be cloudy and uncertain. Prospects of all <i>rubbi</i> crops and poppy remain excellent. A little rain might do good. Prices stationary.
	29 Durbhunga „ 18, '90	Nil	Weather—mornings foggy and occasionally cloudy. Rain has seemed probable for the last two days. Prospects of <i>rubbi</i> continue favourable, but rain would be of immense good to the crop. Poppy is reported to be good, but caterpillars have appeared in some places. Tobacco is approaching maturity; probably an average crop. Fields are being prepared for indigo. Price of common rice ranges from 19½ to 21 seers per rupee.
	30 Mozufferpur „ 18, '90	Nil	Weather—slightly cloudy during the week. All standing crops doing very well. Mustard very promising. Poppy slightly damaged by caterpillars, but prospects continue good in Sudder. Hajipur poppy report not received.
	31 Sarun „ 18, '90	Nil	Weather—cold and clear, and occasionally cloudy. <i>Rubbi</i> crops are doing well. Prospects of poppy continue good. Sugarcane pressing is in full swing.
Bhagulpore Divs.	32 Chumparun „ 18, '90	Nil	Weather—cold. <i>Rubbi</i> growing well and promising a good harvest. Early sowings of poppy in blossom. Clouds keep hovering about now and then. A slight rainfall would do good to both the crops.
	33 Monghyr „ 18, '90	Nil	Weather—seasonable. <i>Rubbi</i> crops progressing. Poppy doing well.
	34 Bhagulpur „ 18, '90	Nil	Weather—too warm for the season. Late rice harvest over; outturn in the two northern subdivisions, after allowing for loss from floods, is estimated at 14 annas, and in the southern subdivision 11 annas. Area under wheat about up to average, but the crop wants rain, and prospects of other <i>rubbi</i> crops are going off also.
	35 Purneah „ 18, '90	Nil	Weather—not cold enough for the time of the year. <i>Aghani</i> rice harvested; a good average crop. Tobacco prospects on the whole good; in some places want of rain has affected the crop. <i>Rubbi</i> crops doing well.
	36 Maldah „ 18, '90	Nil	Weather—rather hot for the season. Harvesting of winter rice nearly over; outturn is expected to average about 12 annas. <i>Kalai</i> and mustard are being reaped and threshed. Transplantation of <i>boro</i> begun. Wheat thriving and coming into ear. Other standing crops doing well. Common rice selling at an average of 16½ seers per rupee.
	37 Sonthal Pergas „ 18, '90	Nil	Weather—bright and cool. Rice harvest may be considered over; outturn almost average. <i>Rubbi</i> crops doing well.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
ORISSA DIVN.	38 Cuttack Jan. 18, '90	Nil	Weather—seasonable. Reaping of <i>guru sarad</i> and early <i>rubbi</i> continues.
	39 Pooree „ 17, '90	Nil	Weather—seasonable. Harvesting of the winter crop (late <i>sarad</i>) still continues. <i>Mung</i> is being sown, and other miscellaneous crops of the season are doing well. Prices of common rice stationary.
	40 Balasore „ 18, '90	Nil	Weather—seasonable. Rice harvest now over. <i>Rubbi</i> yields an outturn of about 11 annas.
CHOTA NAGPORE.			
South-West Frontier Agency.			
CHOTA NAGPORE DIVN.	41 Hazaribagh Jan. 18, '90	Nil	Weather—seasonable. Prospects of crops generally good. Poppy crop in prime condition.
	42 Lohardugga „ 18, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> crops good, but some rain is wanted.
	43 Singbhoom „ 18, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> crops favourable. Sugarcane outturn full.
	44 Manbhoom „ 18, '90	Nil	Weather—seasonable. <i>Rubbi</i> crops doing well, but rain is wanted.

Published for general information.

CALCUTTA ; REVENUE DEPT.,
The 21st January, 1890.P. NOLAN,
Secy. to the Govt. of Bengal.

The following Statement shows the Quantities of the Principal Staples of Traffic imported into Calcutta from the Interior during the month of October, 1889.

IMPORTS INTO CALCUTTA.

Whence imported.	FOOD-GRAINS.							FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	RICE AND PADDY.			Wheat.	Gram and pulses.	Other food-grains.	Total.	Jute, raw.	Gunny bags, †	Linseed.	Mustard seed.				Refined.	Unrefined.	Unmanufactured.	Manufactured.
	Rice.	Paddy.	Total (in rice).															
BENGAL.																		
Bardwan ...	72,017	41,750	98,116	2,202	9,086	36	1,09,440	272	16,115	6,229	714	144	.....	17	.....	.....	21	1
Berhampur ...	43,003	6,848	47,283	.....	.....	19	47,302	.....	7,175	.....	292	.....	.....	723	.....	.....	.....	.....
Bidnapore ...	1,17,542	4,938	1,20,648	.....	.....	.....	1,20,648	1,711	1,750	1,380	.....	13	290	.....	125	172	.....	.....
Bogoby ...	34,163	22,014	47,921	5,731	12,469	713	66,864	53,761	56,790	16,307	5,932	.....	228	139	392	8,240	5,929	765
Burkhanah ...	74,901	24,168	90,068	.....	.....	.....	90,068	1,14,538	67,545	8	.....	.....	746	102	2,857	9,949	2,514	319
Buddon ...	1,188	.....	1,188	4,694	41,679	653	48,114	1,08,263	1,385	3,448	.....	.....	137	102	.....	.....	2,268	.....
Chulna ...	1,700	7,650	6,481	.....	90	.....	6,571	74,781	.....	.....	.....	.....	.....	.....	3,100	.....	.....	.....
Churula ...	2,263	950	2,857	.....	1,458	.....	4,315	5,172	600	134	1,250	.....	53	.....	440	5,501	1,736	.....
Chorshedabad ...	2,195	.....	2,195	5,078	16,681	71	21,905	4,786	.....	416	470	.....	.....	919	.....	.....	.....	.....
Chitragong ...	7,418	.....	7,418	.....	209	.....	7,618	12,186	159,675	.....	81	.....	.....	.....	15	.....	.....	.....
Dumra ...	8	.....	8	1,006	.....	.....	1,014	1,71,759	2,475	.....	142	.....	6	9	.....	23,311	.....	.....
Dumra ...	438	.....	438	.....	.....	.....	438	6,029	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dumra ...	.....	.....	.....	.....	170	.....	170	4,43,090	617,845	2,705	6,540	.....	.....	.....	.....	1,063	.....	.....
Dumra ...	.....	.....	.....	.....	144	.....	144	10,002	108,395	.....	.....	21,425	.....	.....	.....	.....	.....	.....
Dumra ...	.....	.....	.....	.....	.....	.....	.....	71,614	153,335	.....	.....	23,969	.....	.....	.....	825	.....	.....
Dumra ...	225	.....	225	.....	610	.....	835	7,80,531	1,973	.....	3,249	.....	437	.....	.....	.....	.....	.....
Dumra ...	554	.....	554	104	3,112	212	3,982	6,63,693	.....	.....	1,715	72	48	.....	.....	656	.....	.....
Dumra ...	1,61,629	60	1,61,652	.....	740	.....	1,61,652	11,080	.....	.....	.....	.....	.....	.....	.....	150	.....	.....
Dumra ...	8,125	.....	8,125	.....	.....	.....	8,125	70,481	.....	.....	1,903	.....	.....	.....	.....	.....	.....	.....
Dumra ...	160	.....	160	.....	.....	.....	160	6,400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dumra ...	22,089	.....	22,089	.....	.....	.....	22,089	1,851	.....	.....	3,036	1,669	.....	.....	.....	.....	.....	.....
Dumra ...	.....	.....	.....	.....	.....	.....	.....	2,957	.....	.....	.....	600	.....	.....	.....	.....	.....	.....
Total of Bengal ...	5,50,419	1,08,377	6,18,154	20,774	90,568	1,936	7,31,432	27,14,019	1,196,420	25,066	22,288	47,746	3,269	2,858	3,689	26,930	37,163	1,985
BEHAR.																		
Bahia ...	.....	.....	.....	1,124	26,117	2,561	29,802	.....	1,120	63,776	23,201	.....	9	2	270	2,433	247	1,196
Bahia ...	.....	.....	.....	1	.....	.....	1	.....	735	.....	.....	.....	3	.....	.....	369	.....	113
Bahia ...	.....	.....	.....	3,376	11,401	1	14,780	.....	1,120	12,170	1,117	1	.....	.....	.....	3,457	.....	29
Bahia ...	324	.....	324	825	295	.....	1,444	.....	70	395	958	.....	1	.....	.....	.....	25	.....
Bahia ...	.....	.....	.....	1,100	5,755	968	7,823	.....	105	42,740	13,205	52	.....	.....	.....	170	659	14
Bahia ...	.....	.....	.....	951	2,664	.....	3,515	.....	430	28,509	3,367	32	.....	.....	.....	128	119	.....
Bahia ...	.....	.....	.....	.....	.....	.....	.....	.....	280	21,881	3,071	.....	.....	.....	.....	251	.....	.....
Bahia ...	.....	.....	.....	2,541	14,852	441	17,834	.....	2,240	3,082	4,026	145	.....	.....	.....	.....	8	.....
Bahia ...	.....	.....	.....	13,198	13,388	6,291	32,827	333	16,300	11,685	10,015	3	.....	.....	.....	.....	130	.....
Bahia ...	60	.....	60	4,310	7,168	.....	11,538	11,140	1,120	3,714	14,372	.....	.....	.....	.....	5,795	.....	.....
Bahia ...	151	.....	151	4,569	5,185	1,327	11,232	9,826	.....	1,112	640	.....	.....	.....	.....	.....	15	.....
Bahia ...	336	.....	336	10,688	3,297	2,067	16,388	1,239	1,015	4,773	3,692	.....	.....	180	.....	.....	.....	.....
Total of Behar ...	573	.....	573	41,858	90,502	13,951	1,47,184	22,238	24,535	1,03,738	84,547	1	242	185	270	6,779	6,906	1,346
ORISSA.																		
Balasore ...	13,671	3,804	16,086	.....	2,563	253	18,902	1,806	3,550	1,851	242	.....	.....	.....	.....	.....	23	.....
CHOTA NAGPORE.																		
Basarihati ...	.....	.....	.....	.....	63	.....	63	.....	1,960	.....	99	350	.....	.....	.....	.....	.....	.....
Manbhoom ...	635	.....	635	.....	.....	.....	635	.....	280	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total of Chota Nagpore ...	635	.....	635	.....	63	.....	698	.....	2,240	.....	99	350	.....	.....	.....	.....	.....	.....
Grand Total of supplies from the Provinces under the Lieutenant-Governor of Bengal.	5,65,598	1,12,241	6,55,748	62,632	1,83,696	16,140	8,98,216	27,38,065	1,226,745	2,30,655	1,07,176	48,097	3,451	3,045	3,959	33,709	44,122	2,431
OTHER PROVINCES.																		
Assam ...	143	100	203	.....	700	.....	905	4,370	.....	.....	58,204	1,48,537	36	355	.....	.....	.....	.....
North-Western Provinces and Oudh ...	.....	.....	.....	84,205	62,539	5,195	1,51,930	.....	1,015	97,447	11,080	475	24,087	4	2,714	633	.....	13
Punjab ...	14	.....	14	39,374	29,799	7,514	76,651	.....	35	.....	28	1,230	437	.....	.....	.....	1	.....
Central Provinces ...	.....	.....	.....	804	1,313	.....	2,117	.....	.....	688	.....	.....	.....	13	.....	.....	.....	.....
Rajputana and Central India ...	.....	.....	.....	.....	.....	15	15	.....	245	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bombay ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,736	.....	.....	.....	.....	.....	.....
Madras ...	4	.....	4	.....	4,693	.....	4,697	.....	.....	.....	.....	2,115	.....	.....	.....	.....	.....	.....
Pondicherry ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burmah ...	.....	.....	.....	.....	1,113	743	1,858	.....	.....	.....	.....	652	.....	.....	.....	.....	.....	.....
Other places ...	5	.....	5	.....	20	998	1,023	.....	1,700	14	.....	1	.....	.....	27,282	22,808	1	413
Grand Total 1889 of Imports in Oct. 1889	5,65,767	1,12,311	6,55,978	1,86,965	2,83,863	30,605	11,37,412	27,42,442	1,229,740	3,18,804	1,76,488	1,08,330	35,569	3,415	35,995	57,241	44,223	3,021
1889	14,10,588	1,31,198	14,92,587	2,94,839	3,34,399	27,985	21,49,510	36,31,505	2,583,324	5,60,218	1,18,149	1,60,642	29,169	3,677	60,531	53,678	11,889	23,302

* One maund of paddy is equivalent to 25 seers of rice.

† Exclusive of bags obtained by local manufacture.

The Sea-borne Trade of Calcutta in these Staples during the month of October, 1889, was as follows:—

EXPORTED FROM CALCUTTA--																			
To Indian ports, viz.,																			
Bombay ...	32,612	.....	32,612	.....	566	.....	33,478	.....	912,450	.....	15,351	534	.....	.....	1,116	.....	.....	4	.....
Madras ...	.....	.....	.....	.....	14,141	.....	14,141	.....	204,550	.....	.....	10	.....	368	131	.....	.....	.....	.....
Other ports in Madras ...	15,940	52	15,882	16	631	.....	16,539	15,630	107,650	.....	200	1	18	79	.....	.....	.....	3	.....
Burmah ...	3,454	.....	3,454	543	3,939	1,722	9,638	70	30,400	.....	.....	57	165	6	414	1,092	16,534	152	.....
Other Indian ports ...	1,056	.....	1,056	206	1,960	.....	3,222	1	.....	.....	.....	2	.....	5	1,138	274	1,662	13	.....
Pondicherry ...	.....	.....	.....	250	.....	.....	250	.....	26,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total of Inter-port trade ...	53,971	52	53,904	1,015	21,267	1,723	77,308	15,680	1,281,550	.....	15,551	694	103	307	2,878	1,276	18,221	17	.....
To Foreign ports--																			
United Kingdom ...	45,932	.....	45,932	73,391	12,285	.....	1,31,608	10,53,007	1,615,225	2,01,904	44,907	1,79,764	1,918	71	38	.....	.....	.....	.....
Other Foreign ports ...	2,13,821	2,487	2,15,097	12,253	8,804	7,444	2,43,598	6,38,625	11,879,425	2,50,650	16,415	3,166	10,538	1,301	.....	.....	180	.....	.....
Total of Foreign trade ...	2,59,753	2,487	2,61,629	85,644	21,089	7,444	3,75,206	16,99,032	13,494,651	4,52,644	61,522	1,82,926	12,446	1,372	38	.....	180	.....	.....
Grand Total 1889 of Exports in Oct. 1889	3,13,025	2,539	3,14,333	80,659	42,356	9,166	4,52,514	17,06,312	14,776,709	4,52,644	76,873	1,83,324	12,611	1,769	2,916	1,281	18,407	.....	.....
1889	12,60,576	14,491	12,75,633	3,18,803	1,25,993	12,727	17,33,218	18,91,900	13,270,985	7,56,486	2,780	1,63,993	5,533	1,647	2,691	400	23,015	.....	.....

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of October, 1889.

IMPORTS INTO CALCUTTA.

SPECIFICATION OF ROUTES.	FOOD-GRAINS.					FIBROUS PRODUCTS.		OILSEEDS.		Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food-grains.	Jute, raw.	Gunny-bags.	Linseed.	Mustard seed.				Drain- ed.	Un- drained.	Unman- ufactured.	Manu- factured.
By country boats	Mds	Mds	Mds	Mds	Mds	Mds	No.	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds
river steamers	3,01,688	46,643	37,023	1,07,972	8,042	5,70,815	103,940	69,448	62,371	.....	2,201	306	4,796	21,892	14,025	1,531
East Indian	19,762	426	2,975	5,775	.....	5,73,785	.....	24,677	57,616	1,45,250	218	444	.....	189	.....	.....
Eastern Bengal State Railway.	1,00,708	59,739	1,45,377	1,45,212	20,569	99,973	30,100	2,25,733	53,409	2,200	24,439	1,607	968	7,413	637	239
road	2,101	.....	490	16,518	.....	14,19,904	1,061,550	1,641	2,800	47,853	307	1,038	440	3,865	25,560	.....
sea	29,315	1,669	.....	.....	.....	83,248	30,000	.....	.....	.....	27	.....	469	1,173	3,060	298
Grand total of imports in October	13,133	3,864	.....	8,388	1,994	3,657	4,150	1,865	241	3,036	8,307	.....	29,321	22,896	123	262
Grand total of imports in 1889	5,63,767	1,12,341	1,86,965	2,83,863	30,605	27,42,442	1,329,740	3,18,804	1,76,488	1,98,339	35,500	3,415	35,995	57,941	44,223	3,024
Grand total of imports in 1888	14,10,588	1,31,195	2,94,839	3,34,309	27,985	36,31,305	2,583,324	5,60,218	1,18,149	1,60,642	29,159	3,077	69,532	53,678	11,859	23,391

The following Statement shows the Values, Quantities, and Numbers of the Principal Staples of Traffic exported Inland from Calcutta during the month of October, 1889.

EXPORTS FROM CALCUTTA.

Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.	Whither exported.	Cotton piece-goods.		Cotton twist.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.				European.	Indian.				
BENGAL.													
	Rs.	Rs.	Mds.	Mds.	Mds.	No.	CHOTA NAGPORE.	Rs.	Rs.	Mds.	Mds.	Mds.	No.
Burdwan	1,93,599	6,710	443	1,230	24,249	78,309	Hazaribagh	57,233	4,400	1	258	6,614	2,273
Berhampore	58,390	5,289	43	762	15,738	55,445	Manbhoon	1,12,268	13,640	45	1,980	9,623	840
Midnapore	1,81,217	.....	2,415	.....	22,115	13,439	Total of Chota Nagpore	1,40,499	18,040	46	2,238	15,637	3,113
Roochy	79,821	1,870	859	4,091	1,277	63,410	Grand total of supplies into the Provinces under the Lieutenant-Governor of Bengal	83,04,564	68,615	19,372	15,000	5,34,449	657,174
24-Pergunnahs	91,223	3,159	483	100	10,478	4,246							
Nuddoa	2,65,144	2,167	.....	.....	15,994	16,863							
Khulna	25,767	.....	69	.....	5,425	.....	OTHER PROVINCES.						
Jessore	96,713	.....	779	.....	17,130	1,015	Assam	5,14,017	.....	1,322	679	32,779	.....
Moorshedabad	42,751	.....	143	.....	7,548	7,689	North-Western Provinces and Oudh	35,97,993	30,360	3,089	843	25,570	224,388
Dinapore	1,29,024	.....	213	.....	2,905	4,815	Punjab	16,87,581	3,961	1,018	18	.....	489,168
Kajalshye	2,04,561	.....	65	.....	12,453	11,965	Central Provinces	30,114	1,769	169	.....	.....	4,430
Rangpore	3,53,304	.....	261	.....	7,919	3,045	Rajputana and Central India	75,852	770	215	1	.....	25,375
Boora	1,76,631	.....	72	.....	4,140	4,935	Berar	501	110	.....	.....	.....	.....
Fabara	2,19,555	.....	68	.....	17,065	900	Bombay	639	6,451	.....	.....	.....	912,833
Darjeeling	62,622	.....	205	.....	7,432	560	Madras	55,509	4,800	1,945	276	.....	312,269
Calcutta	1,38,348	.....	131	.....	3,911	.....	Pondicherry	750	.....	.....	.....	.....	26,600
Jaipur	8,06,211	.....	1,957	566	31,413	12,615	Burmah	2,35,309	13,710	406	2,492	.....	30,409
Dacca	2,52,170	.....	390	.....	23,060	4,410	Other places	7,023	5,359	10	4,172	.....	13,404,620
Backergunge	2,87,951	.....	1,998	.....	30,650	2,730	Grand Total of (1889)	1,47,09,828	1,25,266	26,696	23,481	5,95,798	16,168,314
Kyminsingh	1,47,420	.....	13	.....	16,950	.....	Exports in Oct. (1888)	1,26,41,485	63,370	25,974	13,504	6,33,798	14,875,638
Tipperah	.....	.....	.....	.....	5,583	26,960	<i>The Sea-borne Trade of Calcutta in these Staples during the month of October, 1889, was as follows:—</i>						
Chittagong	1,07,250	4,140	81	.....	2,406	.....	IMPORTED INTO CALCUTTA—						
Noakhali	.....	.....	.....	.....	.....	.....	Rs.*	Rs.	Mds.	Mds.	Mds.	No.	
Total of Bengal	39,18,973	21,159	13,435	6,749	2,85,796	313,161	From Foreign Ports—	.....	.....	.....	.....	.....	.....
BEHAR.							United Kingdom	1,08,80,042	.....	1,196	.....	4,65,391	.....
Patna	5,32,554	559	256	92	28,963	80,535	Other Foreign ports	40,899	.....	597	.....	1,62,762	1,700
Gya	1,69,513	2,640	33	1,246	9,622	23,240	Total of Foreign Trade	1,09,29,941	.....	1,723	.....	6,28,153	3,700
Shahabad	4,79,439	1,560	21	581	16,239	12,215	From Indian Ports—	.....	.....	.....	.....	.....	.....
Mosufferpore	2,90,598	.....	12	68	9,035	8,135	Bombay	8,381	3,87,515	20	8,382	44,220	.....
Murshidnagar	6,32,465	.....	.....	597	47,195	36,040	Madras	490	13,505	.....	180	.....	.....
Baran	4,25,376	.....	12	56	21,033	36,350	Other ports in Madras	.....	.....	.....	.....	40	.....
Chumpanan	5,57,111	1,540	20	131	18,916	17,255	Burmah	5,184	415	10	15	.....	.....
Monohyr	1,96,497	.....	12	574	19,168	13,890	Other Indian ports	.....	490	.....	10	.....	2,460
Bhadrupore	2,68,254	11,520	144	544	19,560	43,575	Total of Interportal Trade	13,965	4,01,835	30	8,587	44,990	2,460
Burdwan	2,04,183	550	396	971	11,422	9,563	Grand Total of Im- (1889)	1,69,43,906	4,01,835	1,753	8,587	6,72,413	4,160
Malda	1,80,432	.....	95	1,149	22,843	24,570	ports in Oct. (1888)	1,30,84,537	1,92,996	14,519	8,578	6,25,139	26,700
Southern Pergunnahs	.....	.....	.....	.....	.....	.....	* As per tariff declaration value.						
Total of Behar	39,26,823	18,810	993	6,613	2,18,866	305,296							
ORISSA.													
Cuttack	20,280	.....	97	.....	.....	.....				
Balasore	4,88,959	6	4,801	.....	14,148	35,600							
Total of Orissa	5,09,239	6	4,898	.....	14,148	35,600							

The following Statement shows the several Routes followed by the Trade in the Principal Staples of Traffic exported from Calcutta during the month of October, 1889.

SPECIFICATION OF ROUTES.	COTTON PIECE-GOODS.		COTTON TWIST.		Salt.	Gunny-bags.
	European.	Indian.	European.	Indian.		
By country boats	Rs.	Rs.	Mds.	Mds.	Mds.	No.
river steamers	1,46,410	.....	3,119	3,985	2,20,068	87,085
East Indian	6,88,338	.....	2,617	1,745	13,404	25,654
Eastern Bengal State Railway.	97,34,697	89,650	5,945	11,215	2,01,693	1,160,390
road	31,01,175	.....	8,115	.....	43,540	63,625
sea	1,26,878	3,159	490	96	3,945	4,010
Grand Total of Exports in October	9,10,400	32,457	6,430	6,940	12,148	14,838,550
Grand Total of Exports in 1889	1,47,09,828	1,25,266	26,696	23,481	5,95,798	16,168,314
Grand Total of Exports in 1888	1,26,41,485	63,370	25,974	13,504	6,33,798	14,875,638

PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS, FIREWOOD AND SALT IN THE
HEAD-QUARTER STATION BAZARS OF THE DISTRICTS OF BENGAL
DURING THE FORTNIGHT ENDING THE
15TH JANUARY 1890.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (<i>Sorghum Vulgare.</i>)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
BENGAL.																			
Western Districts.																			
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.		
1	Burdwan	13 8	14 8	13 4	No sale.			New 15 0	12 0	16 8	New 16 5	15 12	18 12	...	...	...
2	Bankoora	14 8	14 8	12 4	14 0	14 0	14 8	17 0	15 0	16 4	21 0	19 0	20 8	...	...	...
3	Beerbhoom*	...	15 8	11 0	...	...	...	...	12 0	12 0	...	15 0	16 0	...	...	...
4	Midnapore	13 0	13 0	13 5	...	...	...	{ 12 8 New 14 0 }	12 8	14 0	{ 16 8 New 18 8 }	17 0	20 0	...	...	...
5	Hooghly	13 0	13 0	13 0	...	...	...	8 0	8 0	10 0	12 0	12 0	13 0	...	...	...
	Howrah	...	...	...	...	...	...	9 8	9 8	12 0	14 0	14 0	17 12	...	...	...
Central Districts.																			
	Calcutta	13 6	13 4	12 13	16 9	16 10	16 0	8 11	8 10	9 13	13 8	13 8	14 11	19 4	17 3	17 13			
6	24-Pergunnahs	14 8	13 0	12 8	16 0	16 0	16 0	9 0	7 8	8 0	16 8	16 0	16 0	...	...	...
7	Nuddes	15 0	15 0	14 0	17 12	17 12	22 14	10 10	10 10	12 5	13 4	12 7	17 10	...	...	...
8	Khoolna	...	...	...	...	...	...	New 14 0	Old 11 8	16 0	16 0	16 0	18 0	...	...	...
9	Jessore	13 5	13 5	11 12	...	...	...	9 0	9 0	13 4	16 0	16 0	17 0	...	...	...
10	Moorshedabad	16 0	16 0	12 8	...	...	...	15 8	12 0	13 8	17 0	15 8	18 0	...	...	...
11	Dinapore	17 4	17 8	12 0	16 0	14 8	12 0	15 8	15 8	16 0	19 0	19 0	19 3	...	...	...
12	Rajshahye	15 0	15 12	16 8	18 12	19 8	26 4	13 8	13 8	15 0	15 12	15 12	16 8	...	...	...
13	Rungpore	14 8	13 5	12 4	...	...	...	9 6	10 0	10 8	14 8	13 5	16 0	...	...	...
14	Bogra	{ Best. 13 5 12 0 Common. 16 8 15 12 }		9 15	...	...	...	12 0	12 0	13 8	19 8	18 12	18 12	...	...	...
15	Pubna	13 8	12 0	15 0	...	...	...	7 4	7 8	8 0	15 14	16 8	17 4	...	...	...
16	Darjeeling	10 0	11 0	10 0	10 0	10 0	10 0	5 0	5 0	5 0	12 0	12 0	12 0	...	...	...
17	Julpigoree	13 0	13 0	10 0	16 0	15 0	16 0	8 0	8 0	8 0	17 0	16 0	19 0	...	...	...
Eastern Districts.																			
18	Dacca*	...	13 0	15 0	...	16 0	20 0	...	13 0	16 0	...	16 0	18 0	...	...	...
19	Furreedpore	12 0	12 0	8 0	12 0	12 0	18 0	10 0	11 0	10 0	14 0	15 0	16 0	...	...	...
20	Backergunge	...	...	...	...	...	...	13 5	14 4	13 5	16 0	16 0	15 9	...	...	...
21	Mymensingh	10 0	10 0	8 12	...	...	...	10 0	9 0	12 0	12 12	14 0	20 0	...	...	...

* Present return not received.

A In subdivisions retail prices of salt per rupee are:—Cuttack 10 seers 6 chittacks, and Kanegunge 10 seers.

B In subdivisions retail prices of salt per rupee are:—Contai 9 seers, Tumlook 8 seers, and Ghattal 10½ seers.

C In subdivisions retail prices of salt per rupee are:—Serampore 10 seers and Jehanabad 10 seers.

C1 In subdivisions retail prices of salt per rupee are:—Barasat 9 seers, Basirhat 9 seers, Diamond Harbour (at Magrahat) 10 seers, Barrackpore 9 seers 2 chittacks, and Dum-Dum 10 seers.

D In subdivisions retail prices of salt per rupee are:—Koochibia 10 seers, Meherpore 10½ seers, Chooadanga 9 seers, and

E Magrahat 9 seers 2 chittacks.

F In subdivisions retail prices of salt per rupee are:—Bagurhat 8 seers and Satalhira 9 seers.

F In subdivisions retail prices of salt per rupee are:—Jhanda 9 seers, Magura 9½ seers, Narail 9½ seers, and Bongong 10 seers.

SEERS OF 80 TOLAHS.

BAJRA OR CUMBU. (<i>Pennisetum typho-</i> <i>ideum</i> .)			MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN, ITALIAN MILLET. (<i>Setaria italica</i> .)			GHAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.

S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch. S. Ch.

...	...	...	...	...	...	...	...	...	18 0	18 0	17 0
...	...	...	...	...	...	...	...	...	16 0	15 8	14 8
...	...	...	...	...	...	...	...	...	...	16 0	14 4
...	...	...	...	...	...	...	...	...	16 0	{ 15 0 } { 17 0 }	14 0
...	...	...	...	...	...	...	...	...	16 0	16 0	13 0
...	...	...	...	...	...	...	...	...	17 0	16 12	15 8

14 0	13 0	13 5	...	...	...	16 0	15 11	14 8	16 4	16 2	14 15
...	...	...	...	...	...	5 0	4 0	12 8	18 13	16 0	15 0
...	...	...	...	...	...	...	...	...	20 0	18 14	15 4
...	...	...	...	...	...	...	...	...	13 0	12 0	16 0
...	...	...	...	...	...	...	...	...	16 0	16 0	15 0
...	...	...	...	...	...	...	...	...	21 0	21 0	16 0
...	...	...	...	...	...	...	...	...	15 0	14 8	11 0
...	...	...	...	...	...	...	...	...	18 0	18 0	15 0
...	...	...	...	...	...	...	...	...	14 8	13 5	10 0
...	...	...	...	...	...	...	...	...	14 4	13 8	10 14
...	...	...	...	...	...	...	...	...	15 0	15 0	12 0
...	...	...	13 0	13 0	14 0	...	...	...	10 0	10 0	10 0
...	...	...	...	...	...	...	...	...	13 0	13 0	11 0

...	...	...	...	...	...	...	...	...	...	13 0	13 0
...	...	...	...	...	...	...	...	...	...	11 0	11 0
...	...	...	...	...	...	...	...	...	...	15 3	15 8
...	...	...	...	...	...	...	...	...	...	13 0	13 0

INDIAN-CORN OR MAIZE (<i>Zea Mays</i> .)			ARHAR OR THUR. CAJAN PEA. (<i>Cajanus indicus</i> .)			PINEWOOD.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.

S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
No sale.			24 0	20 0	18 0	100 0	100 0	107 0
28 0	26 0	19 0	16 8	16 8	18 12	280 0	280 0	320 0
...	12 0	20 0	...	160 0	160 0
...	13 8	13 8	20 0	160 0	160 0	120 0
...	11 0	11 0	13 0	120 0	120 0	120 0
...	13 8	13 4	14 8	100 0	100 0	100 0

18 10	18 5	17 12	16 7	16 7	16 4	100 0	100 0	95 0
...	...	...	19 0	18 0	18 0	100 0	100 0	100 0
...	...	...	18 14	16 0	17 12	...	...	...
...	...	...	...	...	...	160 0	160 0	160 0
...	...	...	16 0	16 0	16 0	160 0	160 0	160 0
...	...	...	19 0	19 0	20 0	200 0	200 0	200 0
...	...	...	...	...	...	160 0	160 0	160 0
...	...	...	17 4	17 0	19 1	240 0	240 0	240 0
...	...	...	9 6	10 5	10 0	100 0	100 0	120 0
...	...	...	...	...	...	90 0	90 0	90 0
...	...	...	15 8	16 8	21 0	200 0	200 0	200 0
18 0	21 0	20 0	8 0	8 0	8 0	120 0	120 0	120 0
...	...	...	13 0	13 0	9 0	128 0	128 0	128 0

...	...	...	...	14 0	16 0	...	160 0	120 0
15 0	15 0	20 0	11 0	11 0	12 0	120 0	120 0	120 0
...	...	...	...	...	...	120 0	120 0	120 0
...	...	...	13 0	14 0	13 0	...	...	...

Head-quarter Station Bazars of the Districts of Bengal on the 15th January 1890.

WHOLESALE PRICES PER MAUND OF 40 SEERS.															AVERAGE WAGES PER MONTH.															DISTRICTS.
SALT.			SALT.			SALT.			ABLE-BODIED AGRICULTURAL LABOURER.			SYCE OR HORSE- KEEPER.			COMMON MASON, CARPENTER, OR BLACKSMITH.															
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.													
BENGAL.																														
Western Districts.																														
S. Ch.	S. Ch.	S. Ch.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.													
10 0	10 2	10 7½	3 12 0	3 12 0	3 11 3	8 0	8 0	8 0	6 0	6 0	6 8	10 0	10 0	10 0	Burdwan.	15 0	15 0													
10 0	10 0	10 0	3 15 0	3 15 0	3 14 0	7 0	7 0	6 0	5 0	6 0	5 0	7 8	9 0	8 0				15 0	15 0											
...	10 8	10 0	...	3 10 0	3 13 0	6 0	5 0	5 0	6 0	6 0	6 0	7 8	13 8	12 0				15 0	15 0											
10 3	10 3	10 4	3 15 0	3 15 0	3 14 0	6 1	7 8	6 0	6 0	6 0	5 0	7 4	7 8	7 8	Midnapore.	10 0	10 0													
9 0	9 0	9 0	3 11 6	3 11 6	4 6 0	9 13½	9 13½	9 13½	6 0	6 0	5 0	10 0	10 0	12 4				8 0	8 0											
9 2	9 2	10 8	3 13 0	3 14 0	3 9	7 8	7 8	7 8	7 0	6 0	6 0	12 0	12 0	12 0				30 0	30 0											
9 2	9 2	10 8	3 13 0	3 14 0	3 9	15 0	15 0	15 0	7 0	7 0	7 0	25 0	25 0	25 0	Howrah.	25 0	25 0													
(Agri. labourers.)																														
10 0	10 0	10 5	3 11 6	3 11 11	3 10 0	5 0	5 0	5 0	6 0	6 0	6 0	15 0	15 0	15 0	Calcutta.	15 0	15 0													
10 1	10 0	10 0	3 9 6	3 9 6	3 10 0	8 0	8 0	8 0	6 0	6 0	6 0	15 0	15 0	15 0				24-Pergunnahs.	25 0	22 0										
6 2	9 2	9 2	3 14 0	3 14 0	3 14 0	7 8	6 0	6 0	6 0	6 0	6 0	7 8	7 8	7 8				Nuddea.	15 0	15 0										
9 0	8 0	10 0	4 4 0	4 4 0	3 14 0	7 8	7 8	7 8	7 0	7 0	7 0	12 0	12 0	15 0	Khoolna.	25 0	30 0													
9 2	9 2	10 0	4 0 0	4 0 0	4 0 0	5 0	5 0	5 0	4 0	4 0	4 0	10 0	10 0	10 0				Jessore.	10 0	10 0										
10 12	10 12	10 8	3 12 0	3 12 0	3 12 0	7 8	7 8	6 1	5 0	5 0	5 0	15 0	15 0	15 0				Moorsbedabad.	10 0	10 0										
9 8	9 8	9 8	4 0 0	4 0 0	4 0 0	7 8	7 8	7 8	6 0	6 0	6 0	10 0	10 0	10 0	Dinapore.	15 0	15 0													
9 9	9 0	9 9	4 2 8	4 4 0	4 0 0	4 0	4 0	5 0	4 0	4 0	4 0	8 0	8 0	8 0				Rajshahye.	8 0	8 0										
8 14	8 8	10 0	4 8 0	4 8 0	...	7 8	5 0	7 8	6 0	6 0	6 0	16 0	16 0	16 0				Rungpore.	10 0	10 0										
9 0	8 13	9 0	4 2 8	4 2 8	4 5 4	6 0	6 0	6 0	5 0	5 0	5 0	10 0	10 0	10 0	Bogra.	20 0	22 0													
8 11½	8 11½	9 10	4 0 0	4 0 0	3 15 0	5 0	5 0	5 0	6 0	6 0	6 0	7 0	7 0	8 0				Pubna.	7 0	8 0										
7 0	8 0	8 0	5 0 0	5 0 0	5 0 0	6 0	6 0	6 0	6 0	6 0	6 0	12 0	12 0	12 0				Darjeeling.	12 0	12 0										
9 0	9 0	9 0	4 2 0	4 2 0	4 4 0	7 8	7 8	7 8	9 0	9 0	9 0	20 0	20 0	20 0	Julpigoree.	20 0	20 0													
(Common mason.)																														
...	9 4	9 2	...	4 4 0	4 4 0	6 0	6 0	6 0	7 0	7 0	8 0	10 0	10 0	8 0	Dacca.	20 0	20 0													
9 0	9 0	10 0	4 4 0	4 4 0	4 0 0	10 0	7 8	7 8	10 0	7 0	8 0	15 0	15 0	15 0				Furreedpore.	10 0	10 0										
10 10	10 0	10 10	3 14 0	4 0 0	3 12 0	7 8	9 8	7 8	6 0	6 0	6 0	10 0	12 0	10 0				Backergunge.	15 0	15 0										
9 0	9 0	9 10	4 0 0	4 6 0	4 2 0	7 8	7 8	7 0	6 0	6 0	6 0	12 0	12 0	12 0	Mymensingh.	30 0	30 0													

G In subdivisions retail prices of salt per rupee are :— Lalbagh 10 seers, Jungipore 10 seers, and Kandi 10½ and 10½ seers.

H In Thakurgaon subdivision retail price of salt 8 seers per rupee.

I In subdivisions retail prices of salt per rupee are :—Nattore 9 seers and Nowgong 8 seers 11 chittacks.

J In subdivisions retail prices of salt per rupee are :—Nilphamari 9 seers, Gaibanda 8 seers.

K At Serajunge retail price of salt 10 seers per rupee.

L At Siliguri retail price of salt 8 seers per rupee.

M At Falaoutta in Alipore subdivision retail price of salt 8 seers per rupee.

N In subdivisions retail prices of salt per rupee are :—Patuakhali 9 seers, Perozepore 9 seers, and Bhola 8 seers.

O In subdivisions retail prices of salt per rupee are :—Kishoreganje 8 seers, Jamalpore 10 seers, Sherepore 8 seers, and

Netrokona 8 seers.

PRICES-CURRENT (retail) of Food-grains, Firewood and Salt in the Head-quarter

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN																	
		WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.			JOWAR OR CHOLU. (Sorghum Vulgare.)					
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
Eastern Districts—concluded.																			
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	
22	Chittagong*	...	11 0	11 0	...	...	...	...	8 0	12 0	...	16 0	16 3	...	...	...	...	...
23	Noakholly*	...	...	...	...	...	...	...	15 0	18 0	...	17 0	21 0	...	...	...	...	...
24	Tipperah	11 7	10 7	12 8	...	...	...	Gobindabhadg.	10 0	10 0	16 0	16 0	16 0	23 0	...	...	...	...
25	Chittagong Hill Tracts	...	...	...	...	...	...	...	10 0	0 0	11 63	11 6	11 6	13 54	...	...	...	...
	Hill Tipperah...	6 0	6 0	6 0	...	...	...	...	8 0	8 0	9 0	14 0	16 0	18 0	...	...	...	...
BEHAR.																			
26	Patna	17 6	17 4	...	24 0	24 0	20 8	10 8	10 8	11 0	18 0	18 0	15 8	22 0	22 0	21 0	...	...
27	Gya	15 8	15 8	16 0	23 0	20 0	16 0	10 0	10 0	9 8	17 0	17 0	15 8	...	...	...	...	...
28	Shahabad	16 0	16 0	14 8	22 0	22 0	18 0	9 8	9 0	10 0	17 0	17 0	15 4	21 0	21 0	18 8	...	...
29	Durbhunga	15 6	17 0	15 4	20 12	19 0	17 8	17 9	14 8	11 8	20 4	19 8	13 8	...	...	...	...	...
30	Mozufferpore	14 0	14 0	12 0	20 0	20 0	18 0	12 0	10 0	9 0	18 0	18 0	12 0	...	...	...	...	...
31	Sarun	16 0	16 4	15 0	20 0	22 0	20 8	8 8	8 8	8 8	15 8	15 10	13 10	...	...	...	...	...
32	Chumparun	13 0	13 0	13 0	...	20 0	21 0	9 0	9 0	7 8	18 8	18 0	13 0	...	...	...	...	...
33	Monghyr	18 10	17 5	14 11	21 0	21 0	...	13 2	12 1	12 9	16 13	16 4	15 4	...	...	...	...	...
34	Bhagulpore	14 11	16 6	15 2	20 3	20 3	12 10	12 0	12 0	11 0	17 10	17 11	15 2	...	...	...	...	...
35	Purneah	20 0	20 0	13 0	...	...	...	18 0	17 0	16 0	19 0	19 0	17 0	...	...	...	...	...
36	Maldah	18 0	18 0	13 8	...	...	...	12 0	9 0	12 8	17 0	16 0	17 6	...	...	...	...	...
37	Sonthal Pergha.	13 4	14 0	11 8	...	...	...	12 0	12 0	12 8	17 0	18 0	18 0	...	...	...	...	...
ORISSA.																			
38	Cuttack	11 13	13 2	11 13	...	...	...	10 8	10 8	11 13	19 11	19 11	19 11	...	...	...	...	...
39	Pooree	11 13	13 2	11 13	...	...	...	15 12	14 7	13 2	22 10	22 10	21 0	...	...	...	...	...
40	Balasore	15 0	15 0	12 0	12 0	13 0	13 0	13 0	12 0	12 0	19 0	18 0	22 0	...	...	...	...	...
CHOTA NAGPORE.																			
South-West Frontier Agency.																			
41	Hazaribagh	13 0	14 0	12 0	12 0	12 0	9 0	10 0	10 0	8 0	18 0	120 0	15 0	...	...	...	...	...
42	Lohardugga	12 8	11 12	10 8	13 0	12 0	...	17 0	18 0	12 0	...	...	...	...	...	...	...	...
43	Singbhoom	10 0	10 0	19 0	20 0	20 0	14 0	16 0	16 0	16 0	21 0	20 0	20 0	...	...	...	...	...
44	Manbhoom	13 5	13 5	11 14	...	...	...	15 0	13 0	13 8	22 0	22 0	21 0	...	...	...	...	...

* Present return not received.

† Common rice at Jajpore 23 seers 10 chittacks per rupee, and at Kendrapara 26 seers 4 chittacks.

P In subdivisions retail prices of salt per rupee are:—Sameram 10½ seers, Buxar 10 seers, and Bhabuah 9½ seers.

Q In subdivisions retail prices of salt per rupee are:—Tajpore 11 seers and Madhubani 10 seers.

R In subdivisions retail prices of salt per rupee are:—Hajipore 9½ seers and Sitamarhi 10 seers.

S At Bettiah retail price of salt 9½ seers per rupee.

CALCUTTA,
The 21st January, 1890.

SEERS OF 80 TOLAHS.

BAJRA OR CUMBU. (<i>Pennisetum typho-</i> <i>ideum</i> .)			MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN. ITALIAN MILLET. (<i>Setaria italica</i> .)			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer arietinum</i> .)		
Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.	Present return.	Next preceding re- turn.	Corresponding re- turn of last year.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	12 0	11 10
...	10 0	12 0
...	13 14	13 14	16 0
...
...	12 0	12 0	10 0
...	27 0	24 0	...	19 0	19 8	16 0	23 0	22 8	19 0
...	15 0	15 0	15 0	20 0	19 0	17 0
...	20 8	22 0	18 0
...	28 8	20 8	19 12	...	18 4	17 8	23 0	23 0	17 8
...	18 8	19 0	16 0
...	23 0	23 8	20 0	13 0	14 8	15 0	20 8	21 3	17 8
...	23 8	20 0	...	...	...	22 0	22 0	14 0
...	15 3	10 8	23 1	22 5	17 12
...	20 3	20 3	16 6
...	16 0	16 0	13 0
...	18 0	16 0	13 8
...	16 0	16 0	14 0
...	14 7	15 2	18 6
...	15 12	17 1	13 2
...	14 0	14 0	13 0
...	27 0	30 0	20 0	...	...	...	16 0	16 0	15 0
...	38 0	40 0	27 0	...	...	...	14 0	13 8	14 0
...	10 0	10 0	12 0
...	16 0	15 8	13 5

INDIAN-CORN OR MAIZE. (<i>Zea Mays</i> .)			ARHAR OR THUR. CAJAN PEA. (<i>Cajanus indicus</i> .)			FIREWOOD.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	...	...	...	...	...	...	100 0	108 0
...	...	...	7 0	...	...	...	...	...
...	...	...	8 6 $\frac{1}{2}$	8 6 $\frac{1}{2}$	8 0	...	...	...
...	...	...	...	...	...	320 0	320 0	320 0
...	...	...	8 0	8 0	8 0	...	...	...
23 0	22 8	20 8	21 0	20 0	22 0	130 0	130 0	130 0
...	...	...	19 0	18 0	18 0	160 0	200 0	200 0
...	...	...	20 0	19 0	13 4	140 0	140 0	160 0
24 8	24 0	18 0	18 8	18 0	20 12	160 0	180 0	200 0
22 8	24 0	17 0	18 0	18 0	20 0	160 0	160 0	160 0
21 0	21 14	19 4	19 0	19 8	20 8	160 0	160 0	160 0
24 0	24 8	17 8	17 0	17 8	22 0	160 0	160 0	160 0
24 2	24 2	17 13	17 13	17 13	18 10	147 0	147 0	147 0
22 11	22 11	17 10	17 11	17 11	17 10	164 0	176 12	176 8
...	...	...	16 0	16 0	16 0	130 0	130 0	200 0
...	...	...	...	...	...	160 0	160 0	120 0
25 0	27 0	20 0	20 0	20 0	24 0	200 0	200 0	200 0
...	...	...	14 7	14 7	18 6	80 0	80 0	80 0
...	...	...	14 7	15 12	13 2	80 0	80 0	80 0
...	...	...	...	...	...	160 0	140 0	160 0
21 0	24 0	18 0	15 0	17 0	16 0	320 0	320 0	320 0
40 0	32 0	18 0	Big. 15 4	15 8	16 8	130 0	130 0	140 0
32 0	32 0	...	12 0	12 0	15 0	240 0	200 0	200 0
32 0	32 0	26 0	19 0	18 0	18 0	200 0	200 0	200 0

Station Bazars of the Districts of Bengal on the 15th January 1890—(concluded).

WHOLESALE PRICES PER MAUND OF 40 SEERS.															AVERAGE WAGES PER MONTH.															DISTRICTS.
SALT.					SALT.					ABLE-BODIED AGRICULTURAL LABOURER.					SYCE OR HORSE- KEEPER.					COMMON MASON, CARPENTER, OR BLACKSMITH.										
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.													
S. Ch.	S. Ch.	S. Ch.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.													
Eastern Districts—concluded.																														
...	0 0	9 0	...	4 0 0	4 4 0	10 8	8 0	8 0	8 0	8 0	8 0	8 0	9 8	9 4	9 0	Chittagong.														
..	9 0	8 0	...	4 0 0	4 8 0	7 0	6 0	7 0	5 0	5 0	5 0	5 0	12 0	12 0	11 0	Noakholly.														
8 14	8 14	8 0	4 8 0	4 8 0	4 6 0	7 0	7 0	10 0	7 0	6 0	7 0	15 0	14 0	20 0	Tipperah.															
8 0	8 0	8 0	4 8 0	4 8 0	4 8 0	...	...	...	...	...	...	...	...	...	Chittagong Hill Tracts.						
8 0	8 0	8 0	4 6 0	4 6 0	4 6 0	8 0	8 0	8 0	6 0	6 0	6 0	15 0	15 0	15 0	Hill Tipperah.															
BEHAR.																														
10 0	9 8	10 0	3 14 0	3 14 0	3 13 3	4 0	4 0	4 0	4 8	4 8	4 8	7 0	7 0	6 0	Patna.															
9 2	9 2	9 8	4 2 0	4 2 0	4 0 0	5 0	5 0	5 0	5 0	5 0	5 0	8 0	8 0	8 0	Gya.															
10 0	10 0	10 0	3 15 0	3 15 0	4 0 0	5 0	5 0	5 0	4 0	4 0	4 0	6 0	6 0	6 0	Shahabad.															
10 0	10 0	11 0	3 12 0	3 12 0	3 10 3	3 12	3 12	2 12	3 0	3 0	3 0	3 12	3 12	3 12	Darbhunga.															
10 0	10 0	10 0	3 12 0	4 0 0	3 12 0	3 12	3 12	3 0	3 0	3 0	4 0	7 8	5 0	5 0	Mozufferpore.															
9 8	9 8	10 0	4 2 0	4 2 0	3 14 6	3 12	3 12	3 12	4 0	4 0	4 0	6 9	6 9	6 9	Sarun.															
9 8	9 8	9 0	4 2 0	4 2 0	4 0 0	3 12	3 12	3 12	6 0	6 0	6 0	9 6	9 6	9 6	Chumparun.															
9 11	9 11	9 8	4 0 0	3 14 6	4 0 0	5 10	5 10	5 10	4 0	5 0	4 0	8 0	12 0	8 0	Monghyr.															
10 1	10 1	10 1	3 15 6	3 15 6	4 0 0	4 11	5 10	5 10	5 0	5 0	5 0	11 4	11 4	11 4	Bhagulpore.															
9 8	10 0	9 0	4 3 4	4 0 0	4 5 0	6 9	5 10	5 10	5 0	5 0	5 0	16 0	16 0	16 0	Purneah.															
9 0	9 0	9 8	4 0 0	4 4 0	4 0 0	7 8	7 8	7 8	5 0	5 0	5 0	8 0	10 0	8 0	Maldah.															
9 0	9 4	9 0	4 2 0	4 0 0	4 4 0	3 12	3 12	3 13	5 0	5 0	5 0	7 8	7 8	7 8	Southal Pergas.															
ORISSA.																														
11 0	11 0	11 0	3 12 0	3 12 0	3 12 0	5 0	5 0	5 10	4 8	4 8	4 0	6 0	6 0	7 8	Cuttack.															
11 13	11 13	11 13	3 6 0	3 6 0	3 6 0	7 0	7 0	6 0	5 0	5 0	5 0	8 0	8 0	8 0	Pooree.															
10 0	9 8	9 12	3 14 0	3 15 0	3 13 6	4 0	4 0	4 0	4 0	4 0	4 0	7 0	7 0	7 8	Balasore.															
CHOTA NAGPORE.																														
South-West Frontier Agency																														
8 0	8 0	8 0	4 0 0	4 5 0	4 8 0	4 3	3 12	3 12	4 0	5 0	4 0	7 8	8 0	7 8	Hazaribagh.															
4 8	8 8	8 8	4 9 0	4 9 6	4 9 0	3 4	3 4	3 4	3 8	3 8	3 0	4 11	4 11	6 0	Lohardugga.															
7 0	7 0	7 0	5 8 0	5 8 0	5 8 0	...	...	...	...	...	...	...	...	...	Singbhoom.						
9 2	9 2	9 0	4 2 6	4 2 6	4 3 6	4 11	4 11	4 11	5 0	5 0	5 0	13 2	13 2	13 2	Manbhoom.															

T In subdivisions retail prices of salt per rupee are:—Begusarai 9½ seers and Jamui 9 seers.
 U At Kishengunge retail price of salt 8 seers per rupee.
 V At Bhudruk retail price of salt 9 seers per rupee.
 W In Palamow subdivision retail price of salt 8½ seers per rupee.
 X At Govindpore retail price of salt 9 seers per rupee.

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P. NOLAN,
 Secy. to the Govt. of Bengal.

PRICES-CURRENT (wholesale) of Food-grains, Firewood, and Salt

Number.	MARTS.	WHEAT.			BARLEY.			RICE, BEST SORT.			RICE, COMMON.		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
1	Calcutta ...	2 11 8	2 12 2	2 13 10	2 2 7	2 2 6	2 4 3	4 5 9	4 6 5	3 14 4	2 11 5	2 11 4	2 7 8
2	Serajgunge ...	2 0 0	2 4 0	2 4 0	...	...	...	5 4 0	5 8 0	3 8 0	2 10 0	2 12 0	2 6 0
3	Dacca* ...	...	3 0 0	2 10 0	...	2 7 0	2 0 0	...	3 0 0	2 7 0	...	2 7 0	2 4 0
4	Naraingunge*	...	...	...	...	...	...	...	3 0 0	2 6 0	...	2 12 0	2 4 0
5	Chittagong*	...	3 8 0	3 9 0	...	...	...	...	4 8 0	3 4 0	...	2 8 0	2 7 0
6	Patna ...	2 4 6 2 8 0	Red. White. 2 4 6 2 9 0	...	1 10 0	1 10 0	1 14 6	3 12 0	3 12 0	3 8 0	2 3 0	2 2 6	2 7 0
7	Balasore ...	2 8 0	2 8 0	3 8 0	3 0 0	3 0 0	3 0 0	3 0 0	3 4 0	3 4 0	2 9 0	2 4 0	1 10 0
8	Pooree ...	...	...	...	...	...	...	...	...	...	1 15 0	1 15 0	1 14 0
9	Cuttack ...	3 4 0	3 0 0	3 4 0	...	...	...	3 0 0	3 0 0	3 4 0	2 0 0	2 0 0	2 0 0

* Present returns not received.

CALCUTTA,
The 21st January, 1890.

PRICES PER MAUND

JOWAR OR CHOLU. (<i>Sorghum Vulgare</i> .)			BAJRA OR CUMBU. (<i>Pennisetum typhoides</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.	R.A.P.
1 13 02	1 72	0 02	2 97	2 13 72	12 0
...
...
...
...
1 12 01	12 01	14 0	...	...	...
...
...
...

OF 40 SEERS.

MARUA OR RAGI. (<i>Eleusine Corocana</i> .)			KANGNI OR KAKUN. ITALIAN MILLET. (<i>Setaria italica</i> .)		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
...	2 4 0 2	4 8 2	8 0
...
...
...
...
1 7 0 1	10 0	...	2 0 0 2	0 0 2	7 0
...
...
...

in the undermentioned Marts of Bengal on the 15th January 1890.

GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA. (<i>Cicer Arietinum.</i>)			INDIAN-CORN OR MAIZE. (<i>Zea Mays.</i>)			ARHAR OR THUR. CADJAN PEA. (<i>Cajanus indicus.</i>)			FIREWOOD.			SALT.			MARTS.
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	
2 3 5	2 3 10	2 6 10	1 14 7	1 15 1	2 0 0	2 2 9	2 2 11	2 3 1	0 5 6	0 5 6	0 6 0	3 11 6	3 11 11	3 10 0	Calcutta.
2 8 0	3 0 0	3 4 0	...	...	...	...	...	...	...	...	...	4 0 0	4 2 0	3 10 0	Serajgunge
...	3 0 0	3 0 0	...	...	...	...	2 12 0	2 8 0	...	0 4 0	0 5 0	...	4 4 0	4 4 0	Dacca.
...	3 0 0	3 0 0	...	...	...	...	3 4 0	3 2 0	...	0 8 0	0 10 0	...	4 0 0	3 12 0	Naraingunge
...	3 0 0	3 4 0	...	...	...	...	...	...	...	0 7 0	0 5 3	...	4 0 0	4 4 0	Chittagong.
1 11 6	1 12 0	2 1 0	1 11 6	1 12 0	1 14 6	1 14 0	1 14 0	1 12 0	0 5 0	0 5 0	0 5 0	3 14 0	3 14 0	2 13 3	Patna.
2 12 0	2 12 0	3 2 0	...	...	...	...	...	...	0 4 6	0 5 0	0 4 6	3 14 0	3 15 0	3 13 6	Balasore.
...	3 6 0	3 6 0	3 6 0	Pooree.
2 12 0	2 11 0	2 2 0	2 12 0	2 12 0	2 2 0	0 8 0	0 8 0	0 8 0	3 12 0	3 12 0	3 12 0	Cuttack.

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P. NOLAN,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

METEOROLOGICAL DIVISION.			STATION OBSERVATIONS.														
			AIR PRESSURE.			WIND.		TEMPERATURE.									
			Mean barometric height, 8 A.M.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.	Mean daily temperature of week.	Variation from normal mean of week.	Mean, 8 A.M., temperature.	
ORIGINAL.	DISTRICT.	Representative station.	Pooree	30.016	30.029	—	Calm & N	62	?	?	59.4	15, 15, 17 Jan.	?	60.8	?	?	65.1
			Gopalpore	30.006	30.056	—0.041	NNW	213	80.2	15, 16 Jan.	61.9	13th	79.4	63.0	71.3	+6.7	67.3
			False Point	30.009	30.051	—0.067	NWly.	130	82.9	15th	65.5	16th	79.7	59.0	69.4	+0.6	64.3
			Cuttack	29.966	30.051	—0.044	Calm	15	85.8	15th	58.8	12th, 13th Jan.	84.2	59.4	71.8	—0.5	63.2
SOUTH-WEST BENGAL.	Balasore	Balasore	29.990	30.052	—0.054	NNW	81.7	82.4	15th, 17th Jan.	63.5	16th	81.2	55.9	68.5	+0.9	61.2	
	South-West Midnapore	Saugor Island	30.006	30.053	—0.062	NNE	171	77.7	15th, 16th Jan.	57.9	17th	76.4	61.8	69.1	+1.5	64.9	
	South 24-Pergunnahs	Midnapore	29.882	30.041	—0.075	N	21.8	83.3	14th	54.2	16th, 17th Jan.	82.6	55.9	69.3	+2.8	61.3	
	Midnapore	Midnapore	29.882	30.041	—0.075	N	21.8	83.3	14th	54.2	16th, 17th Jan.	82.6	55.9	69.3	+2.8	61.3	
SOUTH-WEST BENGAL.	24-Pergunnahs	Calcutta	30.011	30.034	—0.079	Calm	48	79.5	15th	54.8	16th	78.0	56.9	67.5	+1.3	61.3	
	Howrah	Burdwan	29.924	30.030	—0.080	Calm	21.8	82.1	14th	53.8	16th	80.6	55.9	68.3	+1.6	59.2	
	Hooghly	Bankoora	29.701	30.021	—0.077	W	34	81.9	14th	53.5	16th	80.4	55.2	67.8	+1.6	58.8	
	Burdwan	Bankoora	29.701	30.021	—0.077	W	34	81.9	14th	53.5	16th	80.4	55.2	67.8	+1.6	58.8	
SOUTH-WEST BENGAL.	Beerbhoom	Raneesgunge	29.709	30.053	—0.066	WNW	29.9	82.5	14th	54.2	16th	80.5	55.6	68.1	+1.9	59.4	
	West Burdwan	Raneesgunge	29.709	30.053	—0.066	WNW	29.9	82.5	14th	54.2	16th	80.5	55.6	68.1	+1.9	59.4	
	Moorshedabad	Berhampore	29.956	30.027	—0.083	North-westerly.	33.5	79.1	14th & 15th Jan.	54.7	13th, 17th Jan.	78.2	56.2	67.3	+1.9	58.5	
	Nuddea	Krishnagar	29.987	30.057	—0.046	WNW	53.7	81.5	14th	53.1	17th	79.7	54.5	67.1	+2.5	60.7	
SOUTH-WEST BENGAL.	Jessore	Jessore	29.990	30.025	—0.069	Calm	17.7	79.7	13th & 14th Jan.	56.5	16th & 17th Jan.	79.0	58.1	68.6	+3.0	69.7	
	Khoolna	Chittagong	29.934	30.025	—0.065	Calm	42.1	81.1	11th	57.1	16th, 17th Jan.	79.7	58.1	68.9	+2.6	61.7	
	Chittagong	Chittagong	29.934	30.025	—0.065	Calm	42.1	81.1	11th	57.1	16th, 17th Jan.	79.7	58.1	68.9	+2.6	61.7	
	Chittagong Hill Tracts	Demagiri	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
SOUTH-WEST BENGAL.	Backergunge	Barrisal	30.011	30.024	—0.053	Calm	21.9	79.3	11th Jan.	56.1	15th, 17th Jan.	77.9	57.9	67.9	+3.5	64.4	
	Noakholly	Noakholly	29.982	30.028	—	Calm	50.9	79.3	13th	54.9	15th	78.7	55.8	67.2	—	63.3	
	Furteedpore	Furteedpore	29.983	30.025	—0.059	Calm	23	74.7	14th	53.0	16th & 17th Jan.	73.8	56.4	65.1	+1.1	60.9	
	Dacca	Dacca	29.990	30.014	—0.080	Westerly	40.7	80.1	13th—15th Jan.	56.3	16th, 17th Jan.	79.3	57.6	68.5	+1.9	62.7	
SOUTH-WEST BENGAL.	Tipperah	Commillah	29.999	30.036	—0.048	SE & NE	19.8	79.4	14th & 15th Jan.	55.5	16th, 17th Jan.	78.7	57.3	67.9	+3.1	63.3	
	Mymensingh	Mymensingh	29.965	30.028	—0.061	North-easterly.	30.7	77.3	11th	58.1	18th	75.1	59.2	67.2	+3.8	60.5	
	Bogra	Bogra	29.938	30.003	—0.065	Calm	19.4	79.8	14th	54.1	14th	77.9	54.9	66.4	+0.8	58.4	
	Pubna	Serajgunge	29.970	30.019	—0.055	Variable	6.0	78.9	14th	53.3	16th	77.6	54.3	66.0	+2.5	58.8	
SOUTH-WEST BENGAL.	Rajshahye	Rampore Beau-leah.	29.948	30.022	—0.069	N	60.7	78.9	13th	54.7	17th	77.6	55.4	66.5	+4.0	69.0	
	Maldah	Maldah	29.959	30.045	—	NW	65.9	79.8	12th	52.5	14th & 17th Jan.	78.4	53.4	65.9	—	62.0	
	Dinapore	Dinapore	29.915	30.056	—0.017	Northerly	37	79.1	13th	51.7	14th	77.1	53.2	65.2	+2.1	60.8	
	Rungpore	Rungpore	29.962	30.035	—0.071	ENE	22	78.9	12th	52.0	16th	77.0	52.9	65.9	+3.5	56.5	
SOUTH-WEST BENGAL.	Jalpigoree	Jalpigoree	29.733	30.056	—0.066	North-easterly.	18.7	?	?	51.9	13th	?	56.2	?	?	60.6	
	Cooch Behar	Cooch Behar	29.733	30.056	—0.066	North-easterly.	18.7	?	?	51.9	13th	?	56.2	?	?	60.6	
	Darjeeling Hill Tracts	Darjeeling	29.948	—	—	WSW	91.4	63.4	15th, 16th Jan.	35.0	12th	53.3	38.7	45.0	+4.6	37.9	
	Purneah	Purneah	29.894	30.030	—0.078	Calm	22.9	76.2	12th & 13th Jan.	49.5	16th	76.3	51.4	63.3	+1.6	54.7	
SOUTH-WEST BENGAL.	North Bhagulpore	Purneah	29.894	30.030	—0.078	Calm	22.9	76.2	12th & 13th Jan.	49.5	16th	76.3	51.4	63.3	+1.6	54.7	
	Mozufferpore	Mozufferpore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Durbhunga	Durbhunga	29.856	30.035	—0.089	SW	35	77.9	11th Jan.	52.6	15th	76.6	55.7	66.2	+4.0	58.0	
	Chumparan	Motihari	29.890	30.044	—0.051	Westerly	86.0	77.2	15th	47.9	17th	74.5†	50.2†	62.4†	+2.7	54.3	
SOUTH-WEST BENGAL.	Saron	Chupra	29.825	30.031	—0.058	SW	25.0	77.3	17th	53.9	11, 12, 13, 16 Jan.	76.3	53.6	64.9	+4.0	57.6	
	Shahabad	Dehree	29.675	30.055	—0.079	SW	124.1	80.8	14th	52.0	11th	77.9	54.3	66.0	+4.6	56.9	
	Buxar	Buxar	29.788	30.048	—0.068	W	59.9	78.4	14th, 15th	49.4	15th	76.4	51.3	63.8	+2.1	55.9	
	Arrah	Arrah	29.828	30.038	—0.061	Calm	45.6	78.8	15th	49.3	16th	76.6	51.4	64.0	+3.4	58.5	
SOUTH-WEST BENGAL.	Gya	Gya	29.645	30.048	—0.073	South-westerly.	101.4	80.0	14th	52.6	17th	78.5	53.3	65.9	+2.8	58.7	
	Patna	Bankipore	29.855	30.051	—0.076	SW	22.4	78.1	15th	50.4	16th	76.9	53.2	64.5	+3.2	57.1	
	South Bhagulpore	Bhagulpore	29.856	30.028	—0.074	Calm	39	78.3	13th	51.0	16th	77.4	53.2	65.3	+3.2	57.3	
	Monghyr	Bhagulpore	29.856	30.028	—0.074	Calm	39	78.3	13th	51.0	16th	77.4	53.2	65.3	+3.2	57.3	
SOUTH-WEST BENGAL.	Southal Pergunnah	Doomka	29.598	30.042	—	North-westerly.	28.6	80.6	14th	51.1	16th	78.3	53.2	65.7	—	57.8	
	Hazaribagh	Hazaribagh	27.973	30.065	—0.052	SW	101.8	78.4	14th	51.4	16th, 17th Jan.	76.9	52.8	64.3	+2.7	60.1	
	Lohardugga	Rancher	27.841	30.056	—0.055	Calm	91.9	89.9	14th	47.9	16th	76.6	51.5	64.1	+2.5	59.0	
	Manbhoon	Rancher	27.841	30.056	—0.055	Calm	91.9	89.9	14th	47.9	16th	76.6	51.5	64.1	+2.5	59.0	
SOUTH-WEST BENGAL.	Sinkbhoon	Chyebassa	29.267	30.074	—	Calm & WsW	17.6	84.5	14th	51.2	11th	81.4	52.0	66.7	—	69.5	

* Means of five days. † Means of six days.
 Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the last year. The humidity of the atmosphere is expressed at percentage, saturated air being presented by 100. A clear sky is denoted by 0 and an overcast sky by 10. The number are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station for the period in question during the past stations in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 17th of January 1890.

														DISTRICT OBSERVATIONS.											
														RAINFALL.											
														Since 1st of month.			Since 15th May 1889.			Average number of rainy days.		Normal number of rainy days.		Representative station.	DISTRICT.
OF WEEK.																									
														Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.						
Average humidity at 8 A.M.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	Mean for district.	Normal mean.	Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.	Average number of rainy days.	Normal number of rainy days.	Representative station.	DISTRICT.											
89	0.3	Nil	Nil	0.05	Nil	0.07	-0.07	74.88	55.24	+19.64	0.0	0.2	Pooree	Pooree	ORISSA.										
90	0	Nil	Nil										Gopalpore	False Point											
92	0.1	Nil	Nil																						
89	1.7	Nil	Nil	0.06	Nil	0.10	-0.10	66.24	51.65	+14.59	0.0	0.2	Cuttack	Cuttack	ORISSA.										
88	0	Nil	Nil	0.05	Nil	0.15	-0.15	49.89	52.75	-2.86	0.0	0.1	Balasore	Balasore											
90	0.1	Nil	Nil	0.07	Nil	0.16	-0.16	58.43	62.17	-3.74	0.0	0.2	Saugor Island	South-West Midnapore											
77	0	Nil	Nil	0.09	Nil	0.25	-0.25	46.29	51.32	-5.03	0.0	0.3	Midnapore	Midnapore	SOUTH-WEST BENGAL.										
91	0	Nil	Nil	0.08	Nil	0.23	-0.23	53.38	51.41	+1.97	0.0	0.3	Calcutta	24-Pergunnahs...											
84	0	Nil	Nil	0.04	Nil	0.11	-0.11	43.83	46.42	-2.59	0.0	0.1	Burdwan	Howrah											
90	0	Nil	Nil	0.01	Nil	0.08	-0.08	55.88	52.37	+3.51	0.0	0.1	Bankoora	Bankoora	SOUTH-WEST BENGAL.										
75	10	Nil	Nil	0.12	Nil	0.22	-0.22	52.44	51.40	+1.04	0.0	0.3	Raneegunge	Reerbhoom											
97	0.9	Nil	Nil	0.14	Nil	0.24	-0.24	51.15	50.26	+0.89	0.0	0.3	Berhampore	West Burdwan											
91	0.1	Nil	Nil	0.05	Nil	0.13	-0.13	51.49	49.02	+2.47	0.0	0.2	Krishnagpur	Moorshedabad	SOUTH-WEST BENGAL.										
86	0.6	Nil	Nil	0.08	Nil	0.19	-0.19	53.30	52.86	+0.44	0.0	0.2	Jessore	Nuddea											
92	0.1	Nil	Nil	0.09	Nil	0.17	-0.17	100.02	113.19	-13.17	0.0	0.3	Chittagong	Jessore											
92	0.4	Nil	Nil	0.03	Nil	0.18	-0.18	63.13	80.81	-17.68	0.0	0.1	Demagiri	Khoolna	SOUTH-WEST BENGAL.										
92	0	Nil	Nil	0.06	Nil	0.43	-0.43	90.20	106.26	-16.06	0.0	0.2	Barrisal	Chittagong Hill Tracts											
95	0	Nil	Nil	0.03	Nil	0.13	-0.13	60.32	55.54	+4.78	0.0	0.1	Furreedpore	Backergunge											
83	6	Nil	Nil	0.04	Nil	0.14	-0.14	74.59	69.37	+5.22	0.0	0.1	Dacca	Noakholly	EAST BENGAL.										
89	0.3	Nil	Nil	0.09	Nil	0.30	-0.30	55.45	69.12	-13.67	0.0	0.2	Commillah	Furreedpore											
94	0.4	Nil	Nil	0.08	Nil	0.17	-0.17	87.63	67.38	+20.25	0.0	0.2	Mymensingh	Dacca											
93	0	Nil	Nil	0.11	Nil	0.17	-0.17	64.81	57.10	+7.71	0.0	0.3	Bogra	Tipperah	SOUTH BENGAL.										
97	0	Nil	Nil	0.12	Nil	0.19	-0.19	55.07	53.08	+1.99	0.0	0.3	Serajunge	Mymensingh											
89	0.1	Nil	Nil	0.12	Nil	0.28	-0.28	54.30	53.60	+0.70	0.0	0.3	Rampore	Bogra											
87	0	Nil	Nil	0.14	Nil	0.23	-0.23	39.76	53.98	-14.22	0.0	0.3	Maldah	Pubna	SOUTH BENGAL.										
89	0.9	Nil	Nil	0.06	Nil	0.11	-0.11	57.37	56.71	+0.66	0.0	0.2	Dinapore	Rajshahye											
92	0	Nil	Nil	0.08	Nil	0.17	-0.17	85.18	73.89	+11.29	0.0	0.2	Rungpore	Maldah											
93	1.4	Nil	Nil	0.04	Nil	0.06	0	117.19	111.26	+5.93	0.0	0.1	Julpigoree	Rungpore	SOUTH BENGAL.										
90	5.9	Nil	Nil	0.12	Nil	0.21	+0.11	133.07	120.49	+12.58	0.0	0.3	Darjeeling	Cooch Behar											
95	0.3	Nil	Nil	0.09	Nil	0.16	-0.16	74.71	58.30	+16.41	0.0	0.2	Purneah	Darjeeling Hill Tracts											
90	0.7	Nil	Nil	0.10	Nil	0.28	-0.28	48.66	42.89	+5.77	0.0	0.3	Mozufferpore	Purneah	NORTH BENGAL.										
89	3.1	Nil	Nil	0.15	Nil	0.27	-0.27	51.84	44.31	+7.53	0.0	0.3	Durbhunga	North Bhagulpore											
85	1.9	Nil	Nil	0.16	Nil	0.22	-0.22	40.13	42.43	-2.30	0.0	0.3	Chupra	Mozufferpore											
74	6	Nil	Nil	0.24	Nil	0.32	-0.32	40.07	39.92	+0.15	0.0	0.4	Dehree	Durbhunga	SOUTH BENGAL.										
80	1.6	Nil	Nil										Buxar	Chumprun											
87	1.9	Nil	Nil										Arrah	Saran											
69	2.0	Nil	Nil	0.21	Nil	0.31	-0.31	37.07	41.20	-4.13	0.0	0.3	Gya	Shahabad	SOUTH BENGAL.										
82	0.6	Nil	Nil	0.15	Nil	0.25	-0.25	43.40	41.03	+2.36	0.0	0.3	Bankipore	Gya											
89	0.6	Nil	Nil	0.13	Nil	0.19	-0.19	42.43	43.27	-0.84	0.0	0.3	Bhagulpore	Patna											
83	0	Nil	Nil	0.07	Nil	0.16	-0.16	54.15	50.50	+3.65	0.0	0.2	Doomka	South Bhagulpore	CHUTIA NAGPUR.										
60	0.4	Nil	Nil	0.09	Nil	0.28	-0.28	49.03	50.39	-1.36	0.0	0.2	Hazaribagh	Monkhyr											
75	0	Nil	Nil	0.19	Nil	0.39	-0.39	44.34	49.03	-4.69	0.0	0.3	Ranchi	Sonthal Pergunnahs...											
72	0	Nil	Nil	0.13	Nil	0.21	-0.21	38.35	46.66	-8.33	0.0	0.3		Lohardugga											
72	0	Nil	Nil	0.13	Nil	0.25	-0.25	48.76	51.03	-2.27	0.0	0.4	Chyebassa	Manbhoom											
72	0	Nil	Nil	0.13	Nil	0.25	-0.25	48.76	51.03	-2.27	0.0	0.4	Chyebassa	Singbhoom											

Notes. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater.
 Missing cloud amount represents the part of the sky covered, the whole sky being denoted by 10. Under the head District observations of rainfall the normal means for the week ending Friday, the 17th of January 1890.
 The means of the district are the numerical average of the rainfall returns received in the district, i.e., from total rainfall at the subdivisional stations.

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 17th of January 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday, 11th January 1890.	Sunday, 12th January.	Monday, 13th January.	Tuesday, 14th January.	Wednesday, 15th January.	Thursday, 16th January.	Friday, 17th January.	Number of rainy days.	Rainfall week.				
ORISSA	Pooree	Pooree	...	...	...	...	...	...	...	Nil	Nil	Nil	Nil	80.63	51.06
		Khurdah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	76.57	56.34
		Bampur	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	65.50	48.95
		False Point	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	76.80	63.37
		Gop	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	Cuttack	Pipli	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Jagatsingpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	75.97	46.81
		Banki	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	52.43	40.32
		Cuttack	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	75.18	54.05
		Kendrapara	...	...	...	...	...	...	...	Nil	Nil	Nil	0.14	72.03	52.02
	Balasore	Jajpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.19	57.04	53.91
		Dharmasala	...	...	...	...	...	...	...	Nil	Nil	Nil	?	59.25	?
		Salsipore	...	...	...	...	...	...	...	Nil	Nil	Nil	?	72.47	?
		Chandbali	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	54.64	52.08
		Bhuddruck	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	57.66	51.37
SOUTH-WEST BENGAL.	Midnapore	Sorah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	46.05	50.91
		Balasore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	46.61	57.50
		Jellasore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.32	39.59	53.51
		Raripodah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.18	54.79	53.02
		Contai	...	...	...	...	...	...	...	Nil	Nil	Nil	0.14	55.13	61.21
	24-Pergunnahs	Sausor Island	...	...	...	...	...	...	...	Nil	Nil	Nil	0.14	56.74	60.90
		Tumlook	...	...	...	...	...	...	...	Nil	Nil	Nil	0.18	49.40	50.70
		Midnapore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.26	46.26	48.24
		Ghattai	...	...	...	...	...	...	...	Nil	Nil	Nil	0.51	43.19	54.37
		Kukrahaty	...	...	...	...	...	...	...	Nil	Nil	Nil	?	59.65	?
	Howrah	Heria	...	...	...	...	...	...	...	Nil	Nil	Nil	?	65.06	?
		Bhagwanpore	...	...	...	...	...	...	...	Nil	Nil	Nil	?	61.72	?
		Garbatia	...	...	...	...	...	...	...	Nil	Nil	Nil	?	46.29	?
		Diamond Harbour	...	...	...	...	...	...	...	Nil	Nil	Nil	0.22	63.41	58.11
		Canning Town	...	...	...	...	...	...	...	Nil	Nil	Nil	?	57.80	?
	Hooghly	Alipore Jail	...	...	...	...	...	...	...	Nil	Nil	Nil	0.59	51.80	55.02
		Barrackpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.18	51.79	49.95
		Dum-Dum	...	...	...	...	...	...	...	Nil	Nil	Nil	0.29	64.38	51.41
		Barasat	...	...	...	...	...	...	...	Nil	Nil	Nil	0.24	57.61	49.60
		Buseerhat	...	...	...	...	...	...	...	Nil	Nil	Nil	?	60.92	?
	Burdwan	Howrah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.26	59.12	51.12
		Moherreka (Ooloberiah.)	...	...	...	...	...	...	...	Nil	Nil	Nil	0.33	54.64	51.70
		Serampore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.16	55.27	49.70
		Hooghly	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	56.93	47.40
		Jehanabad	...	...	...	...	...	...	...	Nil	Nil	Nil	0.19	41.16	54.70
	Bankoora	Culina	...	...	...	...	...	...	...	Nil	Nil	Nil	0.09	41.32	44.90
		Burdwan	...	...	...	...	...	...	...	Nil	Nil	Nil	0.03	47.07	47.20
		Cutwa	...	...	...	...	...	...	...	Nil	Nil	Nil	0.20	43.11	47.30
		Raneegunge	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	55.83	48.20
		Manikur	...	...	...	...	...	...	...	Nil	Nil	Nil	?	53.71	?
	Beerbhoom	Bankoora	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	50.79	51.10
		Bishenpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	57.49	51.00
		Malabar	...	...	...	...	...	...	...	Nil	Nil	Nil	0.06	50.79	51.10
		Khatra	...	...	...	...	...	...	...	Nil	Nil	Nil	0.12	65.91	57.80
		Indas	...	...	...	...	...	...	...	Nil	Nil	Nil	?	45.14	?
	Nuddea	Kotalpore	...	...	...	...	...	...	...	Nil	Nil	Nil	?	48.40	?
		Anda	...	...	...	...	...	...	...	Nil	Nil	Nil	?	40.44	?
		Gangajalghati	...	...	...	...	...	...	...	Nil	Nil	Nil	?	59.17	?
		Raipore	...	...	...	...	...	...	...	Nil	Nil	Nil	?	58.35	?
		Sonawukhi	...	...	...	...	...	...	...	Nil	Nil	Nil	?	54.33	?
	Khoolna	Bh. Soory	...	...	...	...	...	...	...	Nil	Nil	Nil	0.23	59.06	55.30
		Hetampore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.27	47.07	54.07
		Rampore Haut	...	...	...	...	...	...	...	Nil	Nil	Nil	0.27	47.78	51.30
		Boipore	...	...	...	...	...	...	...	Nil	Nil	Nil	?	54.97	?
		Murrai	...	...	...	...	...	...	...	Nil	Nil	Nil	?	53.10	?
	Jessore	Ranaghat	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	55.80	46.00
		Kishnaghat	...	...	...	...	...	...	...	Nil	Nil	Nil	0.11	42.95	48.85
		Choudanga	...	...	...	...	...	...	...	Nil	Nil	Nil	0.16	49.81	50.80
		Meherpore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.19	53.05	47.30
		Kooshtea	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	55.91	54.70
	Moorshedabad	Satkira	...	...	...	...	...	...	...	Nil	Nil	Nil	0.23	52.51	55.30
		Bagirhat	...	...	...	...	...	...	...	Nil	Nil	Nil	0.31	54.00	61.10
		Khoolna	...	...	...	...	...	...	...	Nil	Nil	Nil	0.27	55.78	54.70
		Nakipur	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Rampal	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
	East Bengal	Narail	...	...	...	...	...	...	...	Nil	Nil	Nil	0.22	49.47	45.70
		Jessore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.17	62.35	53.30
		Jhenidah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.18	50.66	53.10
		Masoorah	...	...	...	...	...	...	...	Nil	Nil	Nil	0.10	50.48	48.30
		Bongong	...	...	...	...	...	...	...	Nil	Nil	Nil	0.08	49.01	51.20
	Chittagong	Kandi	...	...	...	...	...	...	...	Nil	Nil	Nil	0.18	55.38	50.70
		Berhampore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.50	46.16	51.70
		Lalbagh	...	...	...	...	...	...	...	Nil	Nil	Nil	0.05	47.13	50.90
		Azimung	...	...	...	...	...	...	...	Nil	Nil	Nil	0.25	55.01	48.70
		Jungipore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.29	55.01	48.70
	Chittagong Hill Tracts.	Isalgola	...	...	...	...	...	...	...	Nil	Nil	Nil	0.37	59.02	50.70
		Jiagunge	...	...	...	...	...	...	...	Nil	Nil	Nil	?	43.25	?
		Akhigunj	...	...	...	...	...	...	...	Nil	Nil	Nil	?	42.81	?
		Patkabari	...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?
		Cox's Bazar	...	...	...	...	...	...	...	Nil	Nil	Nil	0.22	123.50	135.70
	Backergunge	Chittagong	...	...	...	...	...	...	...	Nil	Nil	Nil	0.13	76.43	93.70
		Kutubdia	...	...	...	...	...	...	...	Nil	Nil	Nil	?	113.09	?
		Satkanya	...	...	...	...	...	...	...	Nil	Nil	Nil	?	63.06	?
		Rangmati	...	...	...	...	...	...	...	Nil	Nil	Nil	0.24	63.04	53.30
		Kuma	...	...	...	...	...	...	...	Nil	Nil	Nil	0.11	67.20	79.70
	Chittagong Hill Tracts.	Patnakhali	...	...	...	...	...	...	...	Nil	Nil	Nil	0.33	87.20	87.40
		Percepsore	...	...	...	...	...	...	...	Nil	Nil	Nil	0.33	72.16	69.70
		Burrisal	...	...	...	...	...	...	...	Nil	Nil	Nil	0.30	72.63	67.70
		Bhola	...	...	...	...	...	...	...	Nil	Nil	Nil	0.21	79.20	81.40
		...	...	...	...	...	...	...	Nil	Nil	Nil	?	?	?

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 17th of January 1890—contd.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday 11th January 1890.	Sunday 12th January.	Monday 13th January.	Tuesday 14th January.	Wednesday 15th January.	Thursday 16th January.	Friday 17th January.	Number of rainy days.	of Rainfall week.				
EAST BENGAL—contd.	Noakholly	Gournadi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	61.31	?
		Bauphal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	92.89	?
		Noakholly	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.31	102.17	107.50	
		Fenny	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.54	75.38	106.45	
	Furzedpore	Harishpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	82.96	?	
		Ranganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	86.75	?	
		Madaripore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.24	60.85	85.18	
	Dacca	Furzedpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	63.80	82.96	
		Goulundo	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	56.29	82.79	
		Munshigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	76.33	69.74	
		Dacca	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.14	73.09	58.18	
	Hill Tipperah	Naraingunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.06	80.96	59.21	
		Manickgunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	67.99	49.76	
		Joydebore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	66.61	?	
		Agartola	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.31	44.68	61.22	
		Comilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.32	62.17	75.75	
		Chandpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	64.82	75.44	
		Brahmanberia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.38	50.68	61.90	
		Ramchandrapore.	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	60.14	?	
		Nasirnagar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	30.59	?	
		Daudkandi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	22.29	?	
	Mymensingh	Kasba	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	62.44	?	
		Laksham	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	69.09	?	
		Kishoreganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.30	60.55	69.83	
		Atia (Tangail)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	61.00	55.18	
NORTH BENGAL.	Bogra	Mymensingh	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	96.55	73.79	
		Jamulpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	83.14	64.93	
		Netrikania	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	123.92	72.44	
		Subornakhali	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	67.43	?	
	Pubna	Durgapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	149.98	?	
		Sherepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	87.09	?	
		Sherepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	56.31	?	
		Dewanganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	56.31	?	
	Rajshahi	Pubna	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	40.87	53.47	
		Seraikunga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	60.26	52.59	
		Sherepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	62.66	57.27	
		Nowkhilla	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	60.96	54.93	
	Maldah	Bogra	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	70.63	60.35	
		Panchbibi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	64.96	55.51	
		Beaulah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.26	46.20	52.78	
		Natore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.37	58.84	54.68	
	Dinapore	Naogaon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	57.87	50.83	
		Lalpor	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	36.72	?	
		Manda	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	45.27	?	
		Chanchal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.31	50.53	51.99	
	Rungpore	Gajoi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.25	28.96	50.45	
		Silganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	39.79	?	
		Mohadebore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	51.77	?	
		Churamon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.18	55.63	56.00	
	Jalpigore	Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	61.82	51.95	
		Dinapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.15	59.25	57.41	
		Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.15	67.84	63.17	
		Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.07	61.28	50.97	
	Cooch Behar	Thakurgaon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	87.47	?	
		Bhawanigunge (Gyabanda)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	87.53	61.49	
		Rungpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	74.50	74.15	
		Kurigram	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.15	90.97	72.98	
	Darjeeling Hill.	Bagdogra	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	87.69	84.81	
		(Nilphamari)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	79.00	?	
		Ulipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	123.32	116.56	
		Alipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	119.58	?	
	North Bhagalpore.	Fallacotta	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	127.58	?	
		Dehiganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	89.92	?	
		Bhagatpore (Nagarkatta)	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.42	138.93	?	
		Dinhatia	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.19	98.19	93.78	
	Purneah	Cooch Behar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.05	123.39	117.06	
		Mickilgunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	121.37	103.21	
		Matabhanga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.03	117.63	111.19	
		Buxa	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.51	192.00	192.23	
	Durbhunga	Siliguri	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.01	120.74	162.61	
		Darjeeling	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.30	128.03	108.42	
		Kalimpang	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.02	91.52	82.68	
		Kurseong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.63	168.88	?	
	North Bhagalpore.	Kurseong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	102.37	69.97	
		Kurseong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.17	79.61	63.43	
		Kurseong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.11	63.45	61.28	
		Kurseong	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
	Mozafferpore	Gondwara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Raigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Matiari	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Kaitagaj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.20	60.85	49.38	
	Mozafferpore	Maddapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.13	67.26	47.86	
		Scoopool	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	87.85	?	
		Protabganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.36	42.44	42.94	
		Tajpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.16	50.01	45.50	
	Mozafferpore	Durbhunga	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.29	63.11	44.61	
		Madhubani	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	60.96	?	
		Rahera	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	55.84	?	
		Rahera	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.27	55.06	42.84	
	Mozafferpore	Sitamarhi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.30	48.41	45.07	
		Mozafferpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0.28	42.32	41.08	
		Ilajipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	37.09	?	
		Fars	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	41.02	?	
	Mozafferpore	Mahua	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Sikhar	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
	Mozafferpore	Pupri	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	47.60	?	
		Pupri	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 17th of January 1890 - conold.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday 11th January 1890.	Sunday 12th January.	Monday 13th January.	Tuesday 14th January.	Wednesday 15th January.	Thursday 16th January.	Friday 17th January.	Number of rainy days.	Rainfall week.				
NORTH BEHAR - concluded.	Chhumparun...	Motihari	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.28	74.79	44.46
		Bettiah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	62.29	47.75
		Bagaha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	69.87	?
		Burhura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	51.70	?
SOUTH BEHAR	Sarun	Gopalgunge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.06	35.48	42.79
		Bawan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	44.20	41.50
	Shahabad	Chuprah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	40.74	40.80
		Buxar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.46	47.44	38.29
		Dohree	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	41.66	39.50
		Bhaboonah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	38.16	40.67
		Sasseram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	29.41	40.46
		Arrah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	42.80	40.02
		Mohaniah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
	Gya	Aurungabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.28	37.42	42.28
		Gya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.23	31.85	41.30
		Nowadah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	39.50	39.89
		Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	33.40	39.80
		Arwal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	26.09	?
		Bandanagar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	29.29	?
		Sherrghati	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	17.92	?
		Rajauli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	31.90	?
		Pakri Barawan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
	Patna	Patna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	51.49	41.73
		Dhoup-re	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.26	45.53	41.25
		Behar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.28	41.08	41.00
		Barhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	35.83	39.51
		Bickram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	43.28	?
	Monghyr	Hilse	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	35.21	?
		Begoesera	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	47.02	39.85
		Monghyr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	41.67	40.24
		Jamui	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.24	39.48	42.50
		Gogri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	59.19	?
	South Bhagulpore.	Sheikpura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	43.32	?
		Bhagulpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.15	45.06	41.91
		Hanks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	38.34	43.43
		Kolg-mo	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	44.97	?
		Bangan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
	Sonthal Pergunnahs.	Rajmehal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.03	59.90	52.00
		Godda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	49.04	47.26
		Pakour	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.05	75.30	55.15
		Nya Dookha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	56.75	53.07
		Deoghar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.22	40.40	50.42
		Jamtara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.16	45.31	48.90
		Mohagama	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	56.41	?
		Namatal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	53.87	?
CHUTIA NAGPUR.	Hazaribagh	Pachamba (Girdi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.19	38.90	47.29
		Hazaribagh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.30	49.10	46.51
		Semtaurab	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	36.24	46.02
		Mahudi Hills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	47.04	47.94
		Jhoomra Hills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.32	43.00	62.35
		Barhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	31.36	?
		Chatra	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	46.04	?
		Karagdeha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	30.35	?
	Lohardugga	Ramghar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
		Lohardugga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.51	45.24	50.97
		Ranchi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.27	53.61	51.50
		Palamow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	34.16	43.61
		Silli	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	33.56	?
	Singbhoom	Balumat	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?
		Hosseinabad	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	44.40	?
		Garsah	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	28.77	?
	Manbhoom	Chyebassa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	48.76	51.25
		Chakradhar-pore.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	46.80	?
		Ghatella	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	58.70	?
	Manbhoom	Baharagura	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	53.80	?
		Parulia	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.12	43.46	48.66
		Gobindpore	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.28	33.19	44.79
		Kaphunath-pore.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	46.91	?
	Manbhoom	Barrabhoom	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	44.32	?
		Jhaida	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	51.42	?
		Chag	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	58.56	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 21st January 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 17th
JANUARY 1890.**

THE meteorology of Bengal for the week calls for few remarks. Ordinary north-east monsoon conditions have generally obtained over the greater part of the province, though there has been a tendency for moist southerly winds to set in at a few of the southern stations, which has caused humidity and also temperature to be rather higher than usual at this season. This setting in of southerly winds has apparently been connected with one or more disturbances which have existed over the north-west Himalayas, but these disturbances have not been sufficiently important, nor have they existed long enough to materially affect the weather in Bengal. For the greater part of the week, therefore, fine clear weather has obtained, except at the stations in and near the hills, where the sky has been somewhat clouded over. Temperature has been moderate, though rather above the normal, and humidity has been decidedly high at some stations. Over the greater part of the province northerly winds have generally been reported, but the current has been rather light and feeble. Pressure has been rather low during the week, but the changes from day to day have not been large, while rainfall has been entirely absent except at the single station of Buxa in the Darjeeling Hills district, where some light showers have fallen.

Pressure.—On the 11th, pressure had fallen over the whole province by amounts which varied from 0.03 inch to 0.07 inch, the fall being largest near the hills. During the following two days the pressure recovered itself slightly, but on the 14th there had been a slight fall which was succeeded by a further rise on the 15th. On the 16th the changes were a little variable, while on the 17th a slight rise was generally reported. For the whole week the mean pressure has been below the normal by amounts which have varied between 0.05 inch and 0.08 inch, the defects being generally largest at the northern stations, and particularly along the line of the hills.

Temperature.—Has been rather high throughout the week, and the mean temperature for the whole of the province has been about two and-a-half degrees above the normal. The excess has been even larger than this in Behar, where it has equalled more than three degrees. The distribution of temperature during the week, its range from day to night, and its variation from the normal are best seen in the following table, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are compared with their normal values for the same period. Both day and night temperatures have been decidedly in excess at all these stations except at Cuttack, and as a general rule the day or maximum temperatures have been rather more largely in excess than the night or minimum temperatures. The excess in the day temperature above the normal at Darjeeling has been no less than 8.9°, which is most exceptionally large:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 17th January 1890.

	Normal mean maximum temperature for the week ending 17th January.	Actual mean maximum temperature for the week ending 17th January 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 17th January.	Actual mean minimum temperature for the week ending 17th January 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 17th January.	Actual mean daily temperature for the week ending 17th January 1890.	Variation of actual mean from the normal.
Cuttack	84.5	84.2	-0.3	60.3	59.4	-0.9	72.4	71.8	-0.6
Calcutta	77.0	78.6	+1.6	56.0	56.9	+0.9	66.6	67.5	+0.9
Dacca	78.7	79.3	+0.6	55.2	57.6	+2.4	66.9	68.5	+1.6
Burdwan	78.4	80.6	+2.2	55.3	57.9	+2.6	66.8	68.3	+1.5
Patna	72.5	75.0	+2.5	50.6	53.2	+2.6	61.5	64.5	+3.0
Gya	75.5	78.5	+3.0	50.9	53.3	+2.4	63.1	65.9	+2.8
Furness	74.8	75.3	+0.5	48.8	51.4	+2.6	61.8	63.3	+1.5
Hazaribagh	72.3	75.9	+3.6	51.1	52.8	+1.7	61.8	64.3	+2.5
Darjeeling	64.4	73.3	+8.9	35.2	44.7	+9.5	49.2	58.0	+8.8

Rainfall.—With the exception of two or three unimportant light showers at Buxa in the Darjeeling Hills district, the whole province has been rainless throughout the week.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 17th of January 1890 :—

METEOROLOGICAL DIVISIONS.	TEMPERATURE.						RAINFALL.									
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May 1889.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	83°8'	83°5'	81°1'	80°6'	70°3'	+0°4'	Nil	0°05	-0°05	0°0	0°2	-0°2	Nil	0°10	62°01	53°53
South-West Bengal ...	83°3'	83°1'	79°3'	80°7'	68°1'	+2°0'	Nil	0°08	-0°08	0°0	0°2	-0°2	Nil	0°19	52°37	51°75
East Bengal	81°1'	84°9'	77°6'	87°5'	67°5'	+2°7'	Nil	0°06	-0°06	0°0	0°2	-0°2	Nil	0°22	75°53	73°93
North Bengal	79°3'	81°7'	77°6'	84°3'	65°8'	+2°6'	Nil	0°09	-0°09	0°0	0°2	-0°2	0°02	0°16	73°14	70°03
North Behar	77°9'	47°9'	75°7'	82°7'	64°2'	+3°1'	Nil	0°14	-0°14	0°0	0°3	-0°3	Nil	0°22	57°06	48°41
South Behar	80°8'	49°3'	77°3'	82°8'	65°0'	+3°2'	Nil	0°15	-0°15	0°0	0°3	-0°3	Nil	0°23	44°16	43°57
Chutia Nagpur	80°0'	47°9'	76°2'	82°2'	64°2'	+2°6'	Nil	0°12	-0°12	0°0	0°4	-0°4	Nil	0°29	43°08	40°17

* Pooree, Julpiguri, and Chyebassas not included.

METEOROLOGICAL OFFICE, BENGAL ;
The 21st January 1890.

A. PEDLER,
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 12th to 18th January 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.						HYGROMETRY.			Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
Jan. 1890	Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.	
12th	30·031	68·3	78·9	21·2	57·7	70·6	67·6	·637	65·9	85	Nil	
13th	·042	70·2	80·9	21·5	59·4	73·6	68·6	·633	65·7	76	...	
14th	·032	71·0	80·9	19·8	61·1	73·2	69·4	·609	67·3	82	...	
15th	·054	67·7	78·9	22·5	56·4	71·4	68·6	·485	58·1	63	...	
16th	·068	68·0	79·9	23·8	56·1	71·6	62·7	·452	56·1	63	...	
17th	·090	68·0	80·0	24·0	56·0	72·2	65·0	·522	60·1	66	...	
18th	·094	68·9	80·9	24·0	56·9	70·9	64·6	·526	60·4	70	...	

The mean 10 A.M. pressure of the seven days Inches. 30·059

The mean temperature of the seven days 68·9

The extreme variation of temperature 24·9

The maximum temperature 80·9

The mean 10 A.M. relative humidity of the seven days % 72

The total fall of rain from 12th to 18th January 1890 Inches. Nil

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA ;
The 20th January 1890.

Results of the Meteorological Observations taken at the Alipore Observatory from 12th to 18th January 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches.	°	%			Inches.	
Jan.	12th	135.1	8.5	29.952	66.6	77.8	20.9	56.9	62.7	0.521	60.1	81	WSW and calm ...	33	Nil	Chiefly clear, \overline{p} , \equiv .
"	13th	133.9	9.2	.950	68.1	79.0	21.7	57.3	63.8	.538	61.0	81	WSW and SW ...	81	"	Clear, \overline{p} , \equiv .
"	14th	133.9	8.6	.942	68.5	79.3	18.8	60.5	63.4	.518	60.0	77	SW and NNE ...	48	"	Chiefly clear, \overline{p} , \equiv .
"	15th	129.6	8.4	.975	66.1	77.5	22.0	55.5	60.6	.457	56.4	73	NNE and NNW ...	47	"	Chiefly clear, \overline{p} , \equiv .
"	16th	129.3	9.2	30.002	65.9	78.6	23.0	55.6	60.4	.455	56.3	73	NW by N and calm	31	"	Clear, \overline{p} , \equiv .
"	17th	124.9	9.1	.019	66.8	79.9	25.2	54.7	60.7	.451	56.0	69	NW by N and NNW	34	"	Clear, \overline{p} , \equiv .
"	18th	129.4	8.9	.003	67.6	78.6	22.6	56.0	61.9	.479	57.8	71	NNW and SW by W	47	"	Clear, \overline{p} , \equiv .

The mean pressure of the seven days ... 29.978
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 30.023

Hours.
The total number of hours of bright sunshine ... 61.9
The maximum possible number of hours of sunshine ... 76.0

°
The mean temperature of the seven days ... 67.1
The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 67.1
The extreme variation of temperature ... 25.2
The maximum temperature ... 79.9

Miles.
The highest velocity of the wind in one hour ... 3
lbs.

The highest pressure of wind on one square foot ... Not measurable.

%
The mean relative humidity ... 75
The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 70

Inches.
The total fall of rain from 12th to 18th January 1890 ... Nil
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.03
The total fall from 1st to 18th January 1890 ... Nil
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.14

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

\overline{p} dew; \equiv fog.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;
Calcutta, the 20th January 1890.

MEMORANDUM.

For the week ending 4th January 1890, the returns of the principal Municipalities in Bengal disclosed the following particulars:—

1. Births were registered at the rate of 25·8 per 1,000 of population, and deaths at 23·7 per 1,000 as opposed to 24 and 27·9 per 1,000, respectively, during the preceding week ending 28th December 1889, indicating an improvement in the registration of births with a considerable falling off in that of deaths.

2. In the following Municipalities births and deaths were registered at the highest rates:—

Births.			Deaths.		
		Ratio per mille.			Ratio per mille.
Darjiling	...	51·9	Utterpara	...	84·9
Narainganj	...	49·7	Poori	...	81·8
Durbhanga	...	40·1	Comillah	...	57·7
Monghyr	...	39·8	Narainganj	...	53·8
Bhagulpore	...	38·0	Jessore	...	49·0
Utterpara	...	37·7	Hughli and Chinsurah	...	47·6
Chupra	...	36·2	Burdwan	...	44·2
Arrah	...	32·3	Serampore	...	39·3
Bali	...	31·6	Darjiling	...	37·0
Serampore	...	31·4	Ranaghat	...	35·9
Comillah	...	30·8	Rampore Bauleah	...	31·5
			Chittagong	...	30·5

3. The subjoined table gives the death-rates from the following specific diseases. The figures denote that, as compared with the results of the preceding week, there was a diminution of mortality from all the diseases excepting small-pox, *vide* figures below:—

	Ratio per mille during the weeks ending—	
	4th January 1890.	28th December 1889.
Cholera	...	2·2
Small-pox	...	·5
Fever	...	9·8
Bowel-complaints	...	3·6
Injury	...	·2
Other causes	...	7·3

4. Of the diseases mentioned above, while small-pox and bowel-complaints were noticeably fatal only in the Poori town, viz., at the rates of 14·7 and 12·5 per 1,000 of population, respectively, cholera, fever and the maladies classed under the head of "Other causes" caused the highest mortality in the following Municipalities:—

Cholera.		Fever.		Other causes.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Jessore	24·5	Poori	31·5	Utterpara	37·7
Comillah	19·2	Burdwan	27·4	Poori	21·0
Chittagong	18·8	Rampore Bauleah	23·6	Serampore	19·6
Narainganj	16·6			Comillah	19·2
Hughli and Chinsurah	11·5			Midnapore	13·9
Dacca	4·5			Burdwan	12·2
				Hughli and Chinsurah	11·6
				Bhagulpore	10

5. It is observable that Poori continues to suffer very severely from small-pox which first appeared in the town a fortnight ago.

6. The mortality of the week classified under the heads of *Sex*, *Class* and *Age* stood as follows:—

According to Sex.		According to Class.		According to Age.	
	Ratio per mille.		Ratio per mille.		Ratio per mille.
Males	25·0	Hindus	23·6	Under 1 year	202·8
Females	22·3	Mahomedans	24·2	1 and under 5 years	20·7
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	114	Buddhists	51·4	5 " 10 "	13·7
		Other classes	76·8	10 " 15 "	6·5
				15 " 20 "	16·1
				20 " 30 "	13·5
				30 " 40 "	18·1
				40 " 50 "	15·0
				50 " 60 "	28·2
				60 years and upwards	69·6

The 20th January 1890.

W. H. GREGG, *Dip. Publ. Health, Camb.,*
Sanitary Commissioner for Bengal.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending 4th January 1880.

[illegible]

[illegible]

OFFICE OF SANITARY COMMISSIONER FOR BENGAL,

The 20th January 1890.

W. H. GREGG, Dip. Publ. Health, Camb.,

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

Statements showing Quantities of Goods carried during the month of October 1889.

ORISSA CIRCLE.

TALDUNDA CANAL SYSTEM.

LENGTH OF CANAL OPEN { TALDUNDA CANAL, 27 MILES.
MACHGONG „ 4 „

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
3	1. Grain	.....	26	26	725	26	725	
...	2. Cotton	.....	.....	.....	.....	.....	.....
...	3. Oilseeds	.....	.....	.....	.....	.....	.....
3	4. Salt	.....	34	34	3,290	34	3,290	
...	5. Piece-goods	.....	.....	.....	.....	.....	.....
...	6. Metal	.....	.....	.....	.....	.....	.....
22	7. Building materials	.....	390	390	465	10	60	
...	8. Miscellaneous	.....	.....	.....	.....	.....	.....
1	9. Fuel	.....	9	9	60	9	60	
1 raft	10. Timber No.	.....	1	1	2	1	2	
3 rafts	11. Bamboos "	.....	3,000	3,000	50	3,000	50	
29 & 4 rafts.	12. Total	{	459 & 3,001 No.	459 & 3,001 No.	{ 4,592 }	79 & 3,001 No.	{ 4,187 }	
22 & 7 rafts.	13. Total of same month last year.	{ 12	255 & 6,017 No.	267 & 6,017 No.	{ 9,305 }	267 & 6,017 No.	{ 9,305 }	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats plying cargo No.		.....	29	29	Total tollage of month— 24 + 25 + 26 + 26½ ...			230 10 6
15. Total number of boats plying passenger No.		10	3	13				
15½. Total empty boats		30	10	40	Total tollage of same month last year			207 12 6
16. Total registered tonnage, cargo, private Tons		.....	150	150				
16½. Ditto ditto, Government Tons		.....	626	626	Memorandum of Tollage.			
17. Total registered tonnage, passenger Tons		294	10	304				
17½. Ditto ditto, empty Tons		319	235	554				
18. Ton-mileage		5,617	11,287	16,904	1. Balance not recovered on the 1st of the month ..			Rs. A. P. 4 11 0
19. Estimated value of cargo Rs.		.....	4,540	4,540				
20. Number of passengers		8	599	607	2. Tollage per month ...			230 10 6
21. Rafts, bamboos No.		.....	3,000	3,000				
22. Do., bullahs "		.....	1	1	3. Total ...			235 5 6
23. Estimated value of rafts Rs.		.....	52	52				
24. Tollage on boats		64-4-0	138-7-0	202-11-0	4. Amount credited in the accounts of the month ...			235 5 6
25. Compounded tollage on boats Rs.		.....	.....	.....	
26. Tollage on rafts		.....	1-15-6	1-15-6	5. Balance due at the end of the month ...			.....
26½. Two boats' demurrage for 60 days		.....	.....	26-0-0				
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-2-30				
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	.....	

HIGH LEVEL CANAL, RANGE I.

LENGTH OF CANAL OPEN, 33 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
47	1. Grain ...	165	4	169	8,960	169	8,960	
2	2. Cotton ...	.....	7	7	1,900	7	1,900	
23	3. Oilseeds ...	111	.....	111	9,360	111	9,360	
30	4. Salt ...	.....	82	82	6,930	82	6,930	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
37	7. Building materials ...	71	224	295	1,140	71	750	
35	8. Miscellaneous ...	84	27	111	9,050	111	9,050	
8	9. Fuel ...	62	.....	62	190	62	190	
3 rafts.	10. Timber ...	5,826 c. ft.	.....	5,826 c. ft.	900	5,826 c. ft.	900	
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
182 & 3 rafts.	12. Total ...	{ 493 & 5,826 c. ft.	344	{ 837 & 5,826 c. ft.	{ 38,430	{ 613 & 5,826 c. ft.	{ 38,040	
284	13. Total of same month last year ...	824	239	1,063	56,830	1,063	56,830	
		Up.	Down.	Total.				Rs. A. P.
14. Total number of boats ply- ing cargo No.		114	68	182	Total tollage of month— 24 + 25 + 26 ...			568 4 7
15. Total number of boats ply- ing passenger No.		11	5	16	Total tollage of same month last year ...			659 2 6
15½. Ditto empty boats ..		66	98	164	Memorandum of Tollage.			
16. Total registered tonnage, cargo, private Tons		923	268	1,191				Rs. A. P.
16½. Ditto ditto, Government ..		.....	445	445				
17. Total registered tonnage, passenger Tons		47	21	68	1. Balance not recovered on the 1st of the month ...			132 12 9
17½. Ditto empty boats ..		255	362	617				
18. Ton-mileage ...		35,655	21,375	57,030				
19. Estimated value of cargo Rs.		24,120	13,410	37,530	2. Tollage per month ...			568 4 7
20. Number of passengers ...		45	28	73				
21. Rafts, bamboos C. ft.		.....	.....	.....	
22. Do., timber ..		5,826	.....	5,826	3. Total ...			701 1 4
23. Estimated value of rafts Rs.		900	...	900				
24. Tollage on boats ..		304-13-4	167-2-6	471-15-10	4. Amount credited in the accounts of the month			630 2 10
25. Compounded tollage on boats Rs.		.....	.....	.....	
26. Tollage on rafts ..		96-4-9	.....	96-4-9				
27. Total tollage on boats per ton-mile Rs.		.....	.....	0-0-16	5. Balance due at the end of the month ...			70 14 6
28. Total tollage on rafts per 100 cubic feet Rs.		.....	.....	1-10-5				

HIGH LEVEL CANAL, RANGE II.

LENGTH OF CANAL OPEN, 12½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.		Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	
20	1. Grain ...	51½	7	58½	2,409	58½	2,409
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
1	4. Salt ...	.....	4	4	560	4	560
10	5. Piece-goods ...	.....	11	11	3,080	11	3,080
...	6. Metal ...	.....	.....	.....	.....	.....	.....
45	7. Building materials ...	21½	332	353½	402	...	.....
7	8. Miscellaneous ...	2½	22	24½	2,254	24½	2,254
4	9. Fuel ...	.....	12	12	33	3	6
23 rafts	10. Timber ...	.....	3,204 c. ft.	3,204 c. ft.	1,602	3,204 c. ft.	1,602
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
87 & 23 rafts.	12. Total ...	{ 75½	{ 388 & 3,204 c. ft.	{ 463½ & 3,204 c. ft.	{ 10,340 {	{ 101 & 3,204 c. ft.	{ 9,911
125 & 4 rafts.	13. Total of same month last year.	{ 265	{ 237½ & 53 No.	{ 502½ & 53 No.	{ 29,703 {	{ 410½ & 53 No.	{ 29,622
		Up.	Down.	Total.			Rs. A. P.
14.	Total number of boats plying cargo ... No.	22	65	87	Total tollage of month— 24 + 25 + 26 ...		225 1 3
15.	Total number of boats plying passenger ... No.	2	3	5	Total tollage of same month last year ...		192 6 6
15½.	Ditto empty boats ..	53	18	71	Memorandum of Tollage.		
16.	Total registered tonnage, cargo and boat Tons	109	94	203			
16½.	Ditto Govt. boat ditto ..	43	682	725			
17.	Total registered tonnage, passenger Tons	4	5	9			
17½.	Ditto empty ditto ..	309	45	354			
18.	Ton-mileage ...	5,192	8,640	13,832	1. Balance not recovered on the 1st of the month ...		27 3 9
19.	Estimated value of cargo Rs.	2,439	6,299	8,738	2. Tollage per month ...		225 1 3
20.	Number of passengers ...	249	199	448	3. Total ...		252 5 0
21.	Rafts, bamboos C. ft.	.....	.....	.....	4. Amount credited in the accounts of the month ...		252 5 0
22.	Dō., bullahs ..	.....	3,204	3,204	5. Balance due at the end of the month ...		.....
23.	Estimated value of rafts Rs.	.....	1,602	1,602			
24.	Tollage on boats ..	55-8-0	143-12-0	199-4-0			
25.	Compounded tollage on boats Rs.	.....	.....	.....
26.	Tollage on rafts ..	.....	25-13-3	25-13-3			
27.	Total tollage on boats per ton-mile Rs.	.....	.....	0-0-2-76			
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-12-10			

HIGH LEVEL CANAL, RANGE III.

LENGTH OF CANAL OPEN, 19 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
12	1. Grain ...	27½	4½	32	1,664	32	1,664	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
2	4. Salt ...	.....	6½	6½	744	6½	744	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
15	7. Building materials ...	.....	135	135	234	.....	.....
2	8. Miscellaneous ...	.....	9	9	1,812	9	1,812	
2 rafts	9. Fuel ...	.....	.....	.....	.....	.....	.....
...	10. Timber ...	.....	180 c. ft.	180 c. ft.	78	180 c. ft.	78	
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
31 & 2 rafts.	12. Total ...	{ 27½	155 & 180 c. ft.	182½ & 180 c. ft.	{ 4,532	{ 47½ & 180 c. ft.	{ 4,298	
59	13. Total of same month last year.	116	53½	169½	13,223	165½	13,210	
		Up.	Down.	Total.				Rs. A. P.
14.	Total number of boats plying cargo No.	11	20	31	Total tollage of month— 24 + 25 + 26 ...			76 8 9
15.	Total number of boats plying passenger No.	.....	.....	.....	Total tollage of same month last year ...			71 9 3
16.	Ditto empty ditto "	21	11	32				
17.	Total registered tonnage, cargo and boat Tons	55	40	95				
18.	Ditto Govt. ditto "	.....	270	270	Memorandum of Tollage.			
19.	Total registered tonnage, passenger Tons	.....	.....	.....	
20.	Ditto empty ditto "	125	26	151				Rs. A. P.
21.	Ton-mileage ...	1,155	1,676	2,831	1. Balance not recovered on the 1st of the month ...			2 6 0
22.	Estimated value of cargo Rs.	1,301	3,153	4,454	2. Tollage per month ...			76 8 9
23.	Number of passengers ...	215	148½	363½	3. Total ...			78 14 9
24.	Rafts, bamboos C. ft.	.....	.....	.....	4. Amount credited in the accounts of the month ...			78 14 9
25.	Do., bullahs "	.....	180	180	5. Balance due at the end of the month ...			.....
26.	Estimated value of rafts Rs.	.....	78	78				
27.	Tollage on boats "	19-11-9	54-15-0	74-10-9				
28.	Compounded tollage on boats Rs.	.....	.....	.....	
29.	Tollage on rafts "	.....	1-14-0	1-14-0				
30.	Total tollage on boats per ton-mile	.....	.....	0-0-5-06				
31.	Total tollage on rafts per 100 cubic feet	.....	.....	1-0-8				

JAJEPORE CANAL.

LENGTH OF CANAL OPEN, 6½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
2	1. Grain ...	.....	7½	7½	380	7½	380	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
...	3. Oilseeds ...	.....	.....	.....	.....	.....	.....
...	4. Salt ...	.....	.....	.....	.....	.....	.....
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
...	6. Metal ...	.....	.....	.....	.....	.....	.....
...	7. Building materials ...	.....	.....	.....	.....	.....	.....
14	8. Miscellaneous ...	.....	5	5	280	5	280	
...	9. Fuel ...	.....	.....	.....	.....	.....	.....
...	10. Timber ...	.....	.....	.....	.....	.....	.....
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
16	12. Total ...	.....	12½	12½	660	12½	660	
23 & 15 rafts.	13. Total of same month last year.	{ 128½ & 648 No.	...	128½ & 648 No.	{ 4,624	{ 33½ & 648 No.	{ 4,540	
		Up.	Down.	Total.				Rs. A. P.
14.	Total number of boats plying cargo No.	.....	16	16	Total tollage of month—24 + 25 + 26 ...			6 5 0
15.	Total number of boats plying passenger No.	1	2	3	Total tollage of same month last year ...			32 7 6
15½.	Ditto empty boats "	16	2	18				
16.	Total registered tonnage, cargo and boat Tons	.....	25	25				
16½.	Ditto Govt. boat "	.....	.....	.....	
17.	Total registered tonnage, passenger Tons	2	4	6	Memorandum of Tollage.			
17½.	Ditto, empty boats "	.....	.....	.....	
18.	Ton-mileage ...	144	235	379	1. Balance not recovered on the 1st of the month ...			0 8 6
19.	Estimated value of cargo Rs.	.....	660	660	2. Tollage per month ...			6 5 0
20.	Number of passengers ...	8	22	30	3. Total ...			6 8 6
21.	Rafts, bamboos C. ft.	.....	.....	.....	4. Amount credited in the accounts of the month ...			6 8 6
22.	Do., bullahs "	.....	.....	.....	5. Balance due at the end of the month ...			.....
23.	Estimated value of rafts Rs.	.....	.....	.....	
24.	Tollage on boats "	1-14-6	4-6-6	6-5-0				
25.	Compounded tollage on boats Rs.	.....	.....	.....	
26.	Tollage on rafts "	.....	.....	.....	
27.	Total tollage on boats per ton-mile Rs.	.....	.....	0-0-3-29				
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	.....	

SOUTH-WESTERN CIRCLE.
MIDNAPORE CANAL.
LENGTH OF CANAL OPEN, 53 MILES

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees	Tons.	Rupees.	
950	1. Grain ...	5,124	344	5,468	3,05,012	5,468	3,05,012	* 10 mds.
1	2. Cotton ...	.....	.....	.....	180	.....	180
16	3. Oilseeds ...	52	53	105	9,766	105	9,766	
69	4. Salt ...	.....	751	751	78,867	751	78,867
4	5. Piece-goods ...	2	35	37	98,500	37	98,500	
8	6. Metal ...	46	20	66	62,246	66	62,246	
27	7. Building materials ...	97	21	118	856	118	856	
320	8. Miscellaneous ...	795	668	1,463	2,52,382	1,463	2,52,382	
24	9. Fuel ...	44	57	101	2,032	101	2,032	
86 rafts	10. Timber ...	36,205 c. ft.	94 c. ft.	36,299 c. ft.	9,545	36,299 c. ft.	9,545	
1 raft	11. Bamboos ...	800 „	.....	800 „	48	800 „	48
1,419 & 87 rafts.	12. Total ...	6,160 & 37,005 c. ft.	1,949 & 94 c. ft.	8,109 & 37,099 c. ft.	8,19,434	8,109 & 37,099 c. ft.	8,19,434	
1,804 & 85 rafts.	13. Total of same month last year.	7,925 & 26,596 c. ft.	2,763 & 541 c. ft.	10,688 & 27,137 c. ft.	11,20,048	10,688 & 27,137 c. ft.	11,20,048	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	1,124	295	1,419	Total tollage of month— 24 + 25 + 26 ...	10,558 2 9
15. Total number of boats plying passenger No.	607	739	1,346	Total tollage of same month last year ...	13,019 4 6
15½. Ditto empty „	524	877	1,401		
16. Total registered tonnage, cargo Tons	14,180	3,241	17,421	Memorandum of Tollage.	
17. Total registered tonnage, passenger Tons	3,803	4,908	8,711		
17½. Ditto empty „	1,942	3,758	5,700		Rs. A. P.
18. Ton-mileage	425,125	231,004	656,129	1. Balance not recovered on the 1st of the month ...	4,490 12 10
19. Estimated value of cargo Rs.	4,18,141	3,91,700	8,09,841	2. Tollage per month ...	10,558 2 9
20. Number of passengers ...	7,005	8,768	15,773	3. Total ...	15,057 15 7
21. Rafts, bamboos C. ft.	800	.....	800		
22. Do., bullahs „	36,205	94	36,299	4. Amount paid into Treasury during the month ...	12,150 1 6
23. Estimated value of rafts Rs.	9,374	219	9,593	5. Balance due at the end of the month ...	2,907 14 1
24. Tollage on boats „	6,737-3-0	3,541-6-9	10,278-9-9		
25. Compounded tollage on boats Rs.	.....	.....	.....
26. Tollage on rafts „	275-13-0	3-12-0	279-9-0		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-3		
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-12-0		

HIDGELLER TIDAL CANAL.

LENGTH OF CANAL OPEN, 29 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
337	1. Grain ...	2,056	.. ..	2,056	1,03,208	2,056	1,03,208	
...	2. Cotton ...	...	...	...	...	...	...
6	3. Oilseeds ...	4	13	17	1,680	17	1,680	
25	4. Salt ...	...	194	194	21,490	194	21,490	
2	5. Piece-goods ...	...	5	5	5,200	5	5,200	
1	6. Metal ...	...	...	...	50	...	50	
22	7. Building materials ...	24	103	127	1,050	127	1,050	
693	8. Miscellaneous ...	894	287	1,181	87,192	1,181	87,192	
7	9. Fuel ...	27	18	45	703	45	703	
18 rafts	10. Timber ...	1,694 c. ft.	2,209 c. ft.	3,903 c. ft.	3,367	3,903 c. ft.	3,367	
...	11. Bamboos ...	...	...	...	...	...	...
1,093 & 18 rafts.	12. Total ...	{ 3,005 & 1,694 c. ft.	{ 620 & 2,209 c. ft.	{ 3,625 & 3,903 c. ft.	2,23,940	{ 3,625 & 3,903 c. ft.	2,23,940	
1,415 & 6 rafts.	13. Total of same month last year.	{ 3,730 & 973 c. ft.	{ 963 & 56 c. ft.	{ 4,693 & 1,029 c. ft.	2,69,345	{ 4,693 & 1,029 c. ft.	2,69,345	
14. Total number of boats plying cargo	No.	596	497	1,093	Total tollage of month—24 + 25 + 26 ...			Rs. A. P. 3,175 2 0
15. Total number of boats plying passenger	No.	59	59	118	Total tollage of same month last year			4,242 13 3
16. Total registered tonnage, cargo	Tons	6,159	3,351	9,510	Memorandum of Tollage.			
17. Total registered tonnage, passenger	Tons	710	541	1,251				
18. Ton-mileage ...	...	107,677	68,881	176,558	Rs. A. P.			
19. Estimated value of cargo	Rs.	1,31,752	88,821	2,20,573				
20. Number of passengers ...	...	2,031	1,760	3,791	1. Balance not recovered on the 1st of the month ...			
21. Rafts, bamboos	C. ft.	...	...	...	2. Tollage per month ...			
22. Do., bullahs	„	1,594	2,209	3,903	3. Total ...			
23. Estimated value of rafts	Rs.	1,135	2,232	3,367	4. Amount paid into Treasury during the month			
24. Tollage on boats	„	1,882-15-9	1,208-9-6	3,091-9-3	5. Balance due at the end of the month			
25. Compounded tollage on boats	Rs.	...	0-5-6	0-5-6				
26. Tollage on rafts	„	17-13-0	65-6-3	83-3-3				
27. Total tollage on boats per ton-mile	Rs.	...	...	0-0-3 3				
28. Total tollage on rafts per 100 cubic feet	Rs.	...	...	2-2-1				

SONE CIRCLE.
PATNA CANAL SYSTEM.
LENGTH OF CANAL OPEN, 86½ MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.		Value.	Quantity.	Value.	
		Up.	Down.	Total.	Tons.	Rupees.	
24	1. Grain ...	4	292	296	296	19,428	
...	2. Cotton ...	.....	.....	.....	.....	.....
1	3. Oilseeds ...	1	5	6	6	1,164	
...	4. Salt ...	47	.....	47	47	5,312	
31	5. Piece-goods ...	166	5	171	171	31,933	
...	6. Metal ...	4	.....	4	4	1,380	
19	7. Building materials	.....	142	142	130	1,179	
62	8. Miscellaneous ...	264	272	536	309	73,294	
rafts ...	9. Fuel ...	.....	7	7	7	25	
	10. Timber ...	.....	4	4	4	33	
	11. Bamboos ...	.....	7	7	7	185	
137	12. Total ...	486	734	1,220	981	1,33,933	
141	13. Total of same month last year ...	433	1,036	1,469	1,129	1,59,380	
		Up.	Down.	Total.			Rs. A. P.
14.	Total number of boats plying cargo No.	60	77	137	Total tollage of month— 24 + 25 + 26 ...		1,259 5 3
15.	Total number of boats plying passenger No.	5	8	13			
15½.	Ditto empty "	102	39	141	Total tollage of same month last year ...		1,478 11 6
16.	Total registered tonnage, cargo Tons	839	1,000	1,839			
17.	Total registered tonnage, passenger Tons	114	148	262			
17½.	Ditto empty "	348	230	578	Memorandum of Tollage.		
18.	Ton-mileage ...	54,396	88,784	143,180			Rs. A. P.
19.	Estimated value of cargo Rs.	45,694	88,724	1,34,418	1. Balance not recovered on the 1st of the month ...		421 9 4
20.	Number of passengers ...	290	375	665	2. Tollage per month ...		1,259 5 3
21.	Rafts, bamboos C. ft.	.....	1,095	1,095			
22.	Do., bullahs "	.....	862	862			
23.	Estimated value of rafts Rs.	.....	243	243	3. Total ...		1,680 14 7
24.	Tollage on boats "	446-3-0	658-0-6	1,104-3-6			
25.	Compounded tollage on boats Rs.	75-0-0	75-0-0	150-0-0			
26.	Tollage on rafts "	.....	5-1-9	5-1-9	4. Amount credited in the accounts of the month ...		1,545 2 9
27.	Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1-6			
28.	Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-4-2	5. Balance due at the end of the month ...		135 11 10

ARRAH CANAL SYSTEM.

LENGTH OF CANAL OPEN, 65 MILES.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
19	1. Grain ...	2	121	123	9,864	123	9,864	
1	2. Cotton ...	3	.....	3	2,980	3	2,980	
4	3. Oilseeds ...	1	67	68	7,604	68	7,604	
24	4. Salt ...	221	.....	221	26,758	221	26,758	
...	5. Piece-goods ...	21	4	25	39,100	25	39,100	
...	6. Metal ...	1	.....	1	380	1	380	
19	7. Building materials ...	1	171	172	520	143	400	
92	8. Miscellaneous ...	64	738	802	54,059	330	53,566	
3	9. Fuel ...	.....	57	57	800	57	800	
...	10. Timber ...	.....	2	2	209	2	209	
Rafts	11. { Bamboos ...	.....	13	13	200	13	200	
	{ Firewood ...	.....	164	164	674	164	674	
162	12. Total ...	314	1,337	1,651	1,43,148	1,150	1,42,535	
123	13. Total of same month last year.	477	740	1,217	1,38,656	1,131	1,36,540	

	Up.	Down.	Total.		Rs. A. P.
14. Total number of boats plying cargo No.	37	125	162	Total tollage of month— 24 + 25 + 26 ...	1,248 14 3
15. Total number of boats plying passenger No.	1	4	5		
15½. Total number of empty boats No.	100	50	150	Total tollage of same month last year ...	1,185 6 3
16. Total registered tonnage, cargo Tons	538	2,009	2,547	<i>Memorandum of Tollage.</i>	
17. Total registered tonnage, passenger Tons	69	81	150		
17½. Total registered tonnage, empty Tons	441	210	651		
18. Ton-mileage ...	46,838	103,263	150,101		Rs. A. P.
19. Estimated value of cargo Rs.	79,915	62,359	1,42,274	1. Balance not recovered on the 1st of the month ...	435 10 6
20. Number of passengers ...	950	1,040	1,990	2. Tollage per month ...	1,248 14 3
21. Rafts, bamboos C.ft.	.....	2,050	2,050		
22. Do., bullahs "	.....	.....	.....
22½. Do., firewood "	.....	12,350	12,350		
23. Estimated value of rafts Rs.	.....	874	874	3. Total ...	1,684 8 9
24. Tollage on boats "	289-6-9	613-10-0	903-0-9	4. Amount credited in the accounts of the month ...	1,387 14 0
25. Compounded tollage on boats Rs.	164-0-0	164-0-0	328-0-0		
26. Tollage on rafts "	.....	17-13-6	17-13-6		
27. Total tollage on boats per ton-mile Rs.	.....	.....	0-0-1·57	5. Balance due at the end of the month ...	296 10 9
28. Total tollage on rafts per 100 cubic feet Rs.	.....	.....	0-1-11		

BUXAR CANAL SYSTEM.

LENGTH OF CANAL OPEN, 67 MILES.

Number of boats and rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.			PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	
		Up.	Down.	Total.	Rupees.	Tons.	
6	1. Grain ...	.....	122	122	7,994	122	7,994
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
3	3. Oilseeds ...	.....	70	70	6,943	70	6,943
...	4. Salt ...	2	.....	2	432	2	432
...	5. Piece-goods ...	7	1	8	10,910	8	10,910
...	6. Metal ...	1	.....	1	690	1	690
10	7. Building materials ...	.....	142	142	845	.....	.....
20	8. Miscellaneous ...	27	244	271	19,790	271	19,790
...	9. Fuel ...	.....	.....	.....	.....	.....	.....
Rafts	10. Timber ...	.....	48	48	345	48	345
...	11. Bamboos ...	.....	.....	.....	.....	.....	.....
39	12. Total ...	37	627	664	47,949	522	47,104
57	13. Total of same month last year.	134	861	895	91,052	895	91,052
		Up.	Down.	Total.			Rs. A. P.
Total number of boats plying cargo No.		2	37	39			
Total number of boats plying passenger No.		10	9	19	Total tollage of month—		
Ditto empty "		24	7	31	24 + 25 + 26 ...		424 14 0
Total registered tonnage, cargo Tons		40	803	843	Total tollage of same month last year ...		628 2 6
Total registered tonnage, passenger Tons		270	243	513	Memorandum of Tollage.		
Ditto empty "		92	24	116			
Ton-mileage ...		4,674	17,496	22,170			
Estimated value of cargo Rs.		13,738	33,866	47,604	Rs. A. P.		
Number of passengers ...		749	712	1,461	1. Balance not recovered on the 1st of the month ...		54 4 0
Rafts, bamboos C. ft.		.....	.....	.....	2. Tollage per month ...		424 14 0
Do., bullahs "		.....	3,636	3,636	3. Total ...		479 2 0
Estimated value of rafts Rs.		.....	345	345	4. Amount credited in the accounts of the month ...		457 9 0
Tollage on boats "		24-10-3	208-15-9	233-10-0	5. Balance due at the end of the month ...		21 9 0
Compounded tollage on boats Rs.		91-0-0	91-0-0	182-0-0			
Tollage on rafts "		.....	9-4-0	9-4-0			
Total tollage on boats per ton-mile Rs.		.....	.....	0-0-3-5			
Total tollage on rafts per 100 cubic feet Rs.		.....	.....	0-4-0			

**ABSTRACT FOR THE MONTH OF OCTOBER 1889 AS COMPARED WITH THE
CORRESPONDING MONTH OF THE PREVIOUS YEAR.**

CANAL.	TRAFFIC, 1889-90.		TRAFFIC, 1888-89.		REMARKS.
	During the month.	To end of the month.	During the month.	To end of the month.	
<i>Orissa Circle.</i>	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Taldunda Canal System ...	230 10 6	2,635 2 1	207 12 6	1,274 2 9	
Kendrapara Canal System ...	4,455 2 8	25,716 8 4	4,368 1 6	24,768 6 5	
High Level, Range I ...	568 4 7	3,967 1 3	659 2 6	3,373 13 9	
Ditto, " II ...	225 1 3	1,702 1 6	192 6 6	1,464 5 3	
Ditto, " III ...	76 8 9	813 8 6	71 9 3	715 11 0	
Jajepore Canal ...	6 5 0	50 5 8	32 7 6	39 5 6	
Total Orissa Circle ...	5,562 0 9	34,884 11 4	5,531 7 9	31,635 12 8	
<i>South-Western Circle.</i>					
Midnapore Canal ...	10,558 2 9	85,923 4 3	13,019 4 6	77,084 7 9	
Hidgellee Tidal Canal ...	3,175 2 0	31,162 9 9	4,242 13 3	39,800 15 3	
Total South-Western Circle	13,733 4 9	1,17,085 14 0	17,262 1 9	1,16,885 7 0	
<i>Sone Circle.</i>					
Patna Canal System ...	1,259 5 3	15,601 9 6	1,478 11 6	16,288 15 0	
Arrah ditto ...	1,248 14 3	11,267 1 8	1,185 6 3	12,174 10 6	
Buxar ditto ...	424 14 0	4,097 12 5	628 2 6	5,655 2 0	
Total Sone Circle ...	2,933 1 6	30,966 7 7	3,292 4 3	34,118 11 6	
GRAND TOTAL ...	22,228 7 0	1,82,937 0 11	26,085 13 9	1,82,639 15 2	

GOVERNMENT TRANSPORT SERVICE.

CANAL.	TRAFFIC, 1889-90.						TRAFFIC, 1888-89.					
	During the month.			To end of the month.			During the month.			To end of the month.		
	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.	Passen- gers.	Goods.	Total receipts.
<i>Orissa Circle.</i>	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A. P.	No.	Mds.	Rs. A.
High Level ...	816	290	744 3 1	3,921	4,268	4,164 13 11	703	71	716 12 3	2,461	1,269	2,728 11
Total Orissa Circle ...	816	290	744 3 1	3,921	4,268	4,164 13 11	703	71	716 12 3	2,461	1,269	2,728 11

TOTAL NAVIGATION RECEIPTS.

CANAL.	EARNINGS, 1889-90.		EARNINGS, 1888-89.		REMARKS.
	During the month.	To end of the month.	During the month.	To end of the month.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
Orissa Canals ...	6,306 3 10	39,049 9 3	6,248 4 0	34,364 8 2	
Midnapore Canal ...	10,558 2 9	85,923 4 3	13,019 4 6	77,084 7 9	
Hidgellee Tidal Canal ...	3,175 2 0	31,162 9 9	4,242 13 3	39,800 15 3	
Sone Canals ...	2,933 1 6	30,966 7 7	3,292 4 3	34,118 11 6	
Total ...	22,972 10 1	1,87,101 14 10	26,802 10 0	1,85,368 10 8	

CALCUTTA,
The 21st January 1890.

G. A. G. SHAWK,
Under-Secy. to the Govt. of Bengal.

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 18th January 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 18TH JANUARY 1890.			WEEK ENDING SATURDAY, THE 19TH JANUARY 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy ...	1,673	4,01,615	7,255	1,803	4,62,560	8,717
Jute ...	188	1,41,075	2,484	211	1,34,950	2,401
Firewood ...	66	40,125	600	167	75,425	1,167
Other articles ...	766	2,04,505	2,752	1,169	2,36,615	3,764
Total ...	2,693	7,87,380	13,091	3,350	9,09,550	16,039

Nalhati State Railway.

*Statement showing increases and decreases in tonnage of Staples carried over the Nalhati State
Railway during the month of November 1889, as compared with the same month of the previous year.*

STAPLES.	1888.		1889.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1888.	1889.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.		
Coal ...	1,211	.....	1,213	.....	1,211	1,213	2	.....
Cotton, raw ...	8	.....	13	.....	8	13	5	.....
Cotton, piece-goods—								
1.—European ...	45	3	33	.....	45	33	.....	15
Grains—								
2.—Rice ...	54	416	48	6	470	54	.....	416
3.—Gram ...	1	.....	4	.....	1	4	3	.....
4.—Others ...	5	33	10	10	38	20	.....	18
Hides and skins—								
1.—Hides of cattle—								
b.—Undressed ...	.....	2	.....	11	2	11	9	.....
Jute—								
1.—Raw ...	.....	118	23	7	118	23	.....	95
2.—Gunny bags and cloths ...	9	.....	7	1	9	8	.....	1
Leather, manufactured ...	8	.....	5	.....	8	5	.....	3
Liquors—								
1.—Beer ...	1	.....	.....	.....	1	.....	.....	1
2.—Wines ...	1	.....	.....	.....	1	.....	.....	1
Metals—								
1.—Copper, unwrought ...	.....	.....	.....	5	.....	5	.....	.....
2.—Iron ...	1	.....	13	.....	1	13	12	.....
4.—Others ...	1	5	1	.....	6	1	.....	5
Oils—								
1.—Castor ...	.....	1	1	.....	1	1	.....	.....
2.—Kerosine ...	3	.....	6	2	3	7	4	.....
3.—Others ...	4	.....	.....	.....	4	.....	.....	4
Oilseeds—								
1.—Linseed ...	.....	20	.....	8	20	8	.....	12
2.—Mustard and rape ...	16	.....	25	12	16	37	21	.....
Provisions—								
1.—Ghee ...	.....	.....	4	.....	.....	4	.....	.....
2.—Dried fruits and nuts ...	6	2	.....	.....	8	.....	.....	8
3.—Others ...	7	.....	4	.....	7	6	.....	1
Paper and pasteboard ...	2	1	2	.....	3	.....	.....	3
Railway plant and rolling-stock ...	100	26	87	30	135	67	.....	68
Salt ...	22	.....	45	.....	22	45	23	.....
Silk, raw—								
2.—Indian ...	.....	2	8	3	2	11	9	.....
Silk piece-goods—								
2.—Indian ...	.....	7	.....	3	7	3	.....	4
Stone and lime ...	10	.....	6	.....	10	6	.....	4
Sugar—								
1.—Drained ...	15	.....	3	.....	15	3	.....	12
2.—Undrained ...	1	.....	6	.....	1	6	5	.....
Tobacco ...	.....	.....	1	1	.....	2	.....	.....
Timber ...	1	.....	3	.....	1	3	2	.....
Wool—								
1.—Raw ...	.....	1	1	.....	1	1	.....	.....
b.—Indian ...	4	.....	.....	.....	4	.....	.....	4
All other articles of merchandise ...	60	20	42	.....	81	73	.....	7
Total ...	1,605	637	1,553	131	2,262	1,686	106	682

	INCREASE.	Tons.
Hides and skins—		
(1) Hides of cattle—		
(b) Undressed ... ..	...	9
The increase is due to greater export.		
Metals—		
(2) Iron ... ..	...	12
Due to greater import for local consumption.		
Oilseeds—		
(2) Mustard and rape ... ..	...	21
Due to greater demand.		
Salt ... ..	...	28
Owing to sudden demand imported by rail.		
Silk, raw—		
(2) Indian ... ..	...	9
Due to greater export to Europe.		
	DECREASE.	
Cotton piece-goods—		
(1) European ... ..	...	15
This was imported by the steamer plying between Jeagunge and Calcutta.		
Grains—		
(2) Rice ... ..	...	416
This is due to less export from intermediate stations owing to less demand in North-Western Provinces this year.		
Jute—		
(1) Raw ... ..	...	95
This was despatched by boat.		
Oilseeds—		
(1) Linseed ... ..	...	12
Less exported owing to less demand.		
Railway plant and rolling-stock ... ..	...	68
Less Railway material was carried during the month.		
Sugar—		
(1) Drained ... ..	...	12
This is due to less demand, bazar being dull.		

The 27th December 1889.

R. G. MOOKERJEE,
Manager, Nalkati State Railway.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for the first 11 days of January 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period ...	361,717	4,16,729 7 0	42,50,665 20	9,60,460 2 0	30,683 8 0	14,07,873 1 0	100,533½	146,312½	246,846½
Or per mile of railway ...	...	273 2 9	...	629 9 8	20 1 10	922 14 3	...	...	...
For previous weeks of half-year ...	...	...	...	...	...	...	...	...	...
Total for 11 days ...	361,717	4,16,729 7 0	42,50,665 20	9,60,460 2 0	30,683 8 0	14,07,873 1 0	100,533½	146,312½	246,846½
COMPARISON.									
Total for corresponding first 12 days of previous year ...	384,947	4,61,374 12 6	40,96,786 30	10,94,156 3 7	26,814 5 5	15,82,345 5 6	111,242	170,594	280,836
Per mile of railway corresponding period of previous year ...	...	302 7 1	...	717 3 1	17 9 3	1,037 4 3	...	...	...
Total to corresponding date of previous year ...	384,947	4,61,374 12 6	40,96,786 30	10,94,156 3 7	26,814 5 5	15,82,345 5 6	111,242	170,594	280,836

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR THE FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1,525½	15,82,345	1,657	1,525½	14,07,873	923	1,525½	5,41,29,071	546	1,525½	3,39,68,940	543	...	155,121

PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for the first 11 days of January 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period ...	21,710	11,145 9 0	53,625 30	3,661 13 0	72 13 0	14,880 3 0	2,746	1,016	3,762
Or per mile of railway ...	380	194 13 8	937 30	64 0 3	1 4 4	260 2 3	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 11 days ...	21,710	11,145 9 0	53,625 30	3,661 13 0	72 13 0	14,880 3 0	2,746	1,016	3,762
COMPARISON.									
Total for corresponding first 12 days of previous year ...	22,863	11,985 3 0	44,644 20	2,937 3 0	69 2 9	14,991 8 9	3,226	878	4,104
Per mile of railway corresponding period of previous year ...	400	269 8 6	780 20	51 5 7	1 3 4	262 1 5	.....	.....	.....
Total to corresponding date of previous year ...	22,863	11,985 3 0	44,644 20	2,937 3 0	69 2 9	14,991 8 9	3,226	878	4,104

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR THE FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1888 TO 12th JANUARY 1889.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 11th JANUARY 1890.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	14,992	262	57½	14,880	260	57½	3,83,750	164	57½	3,97,311	169	13,561	.....

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for the first 11 days of January 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. s.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the period ...	28,832	7,334 11 0	17,311 0	722 3 0	16 8 6	8,067 6 0	1,419	99	1,518
Or per mile of railway ...	.....	329 10 4	.....	32 7 4	0 7 7	362 9 3	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 11 days ...	28,832	7,334 11 0	17,311 0	722 3 0	16 8 6	8,067 6 0	1,419	99	1,518
COMPARISON.									
Total for corresponding first 12 days of previous year ...	31,265	7,705 7 3	15,086 20	638 15 0	11 2 0	8,255 8 3	1,538	112	1,650
Per mile of railway corresponding period of previous year ...	.....	346 5 0	.....	28 3 7	0 8 0	371 0 7	.....	.....	.....
Total to corresponding date of previous year ...	31,265	7,705 7 3	15,086 20	638 15 0	11 2 0	8,255 8 3	1,538	112	1,650

Approximate Statement of gross receipts of the Tarkessur Branch Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR THE FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR THE FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1st APRIL 1888 TO 12th JANUARY 1889.			TOTAL RECEIPTS FROM 1st APRIL 1889 TO 11th JANUARY 1890.			Total increase in 1889.	Total decrease in 1889.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	8,256	371	22½	8,067	363	22½	2,15,138	236	22½	2,12,063	232	.....	3,075

NALHATI STATE RAILWAY.

Approximate Return of Traffic for first 11 days of January 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the first 11 days	4,553	1,642 0 0	29,324 0	1,584 0 0	31 0 0	3,357 0 0	800	309	1,109
Or per mile of railway	167	60 0 0	1,076 0	62 0 0	1 0 0	123 0 0	.....	.....	.....
For previous weeks of half-year	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for one week	4,553	1,642 0 0	29,324 0	1,584 0 0	31 0 0	3,357 0 0	800	309	1,109
COMPARISON.									
Total for corresponding period of previous year	5,053	1,913 0 0	24,731 0	1,366 0 0	22 0 0	3,201 0 0	872	762	1,634
Per mile of railway corresponding week of previous year	133	70 0 0	9 8 0	46 0 0	1 0 0	117 0 0	.....	.....	.....
Total to corresponding date of previous year	5,051	1,913 0 0	24,731 0	1,366 0 0	22 0 0	3,201 0 0	872	762	1,634

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR LAST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR LAST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	3,201	117	27½	3,357	123	27½	78,442	74	27½	77,907	73	.....	535

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for first 11 days of January 1890, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	MDS. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 11 days	68,548	28,612 0 0	3,42,046 0	39,248 0 0	7,435 0 0	75,295 0 0	8,246	13,261	21,507
Or per mile of railway	251	105 0 0	1,253 0	144 0 0	5 0 0	254 0 0*	.....	.....	.....
For previous weeks of half-year	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for one week	68,548	28,612 0 0	3,42,046 0	39,248 0 0	7,435 0 0	75,295 0 0	8,246	13,261	21,507
COMPARISON.									
Total for corresponding period of previous year	63,107	22,470 0 0	2,28,770 0	29,114 0 0	4,558 0 0	47,142 0 0	9,215	9,080	18,295
Per mile of railway corresponding week of previous year	231	82 0 0	838 0	74 0 0	1 0 0	157 0 0*	.....	.....	.....
Total to corresponding date of previous year	63,107	22,470 0 0	2,28,770 0	29,114 0 0	4,558 0 0	47,142 0 0	9,215	9,080	18,295

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	47,142	173	273	75,295	276	264*07	12,96,845	126	273	15,59,817	146	8,02,672	.....

DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

	Rs.
Approximate earnings for week ending 21st December 1889	7,007
Corresponding week last year	10,835
Decrease	3,828
Receipts from 1st July to 21st December 1889	2,76,214
From 1st July to 22nd December 1888	2,96,767
Decrease	20,553
Compared with 1887, there is an increase of Rs. 28,649 for the corresponding period.	
Miles open week ending 21st December 1889	51
Corresponding week last year	51
Receipts per mile open week ending 21st December 1889	Rs. 137 6 3
Corresponding week last year	212 7 4
Decrease	75 1 1



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, JANUARY 29, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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Abstract of the Proceedings of the Council of the Lieutenant-Governor of Bengal, assembled for the purpose of making Laws and Regulations under the provisions of the Act of Parliament 24 and 25 Vic., Cap. 67.

The Council met at the Council Chamber on Saturday, the 18th January, 1890.

Present:

The HON'BLE SIR STEUART COLVIN BAYLEY, K.C.S.I., C.I.E., Lieutenant-Governor of Bengal, *presiding*.
 The HON'BLE SIR CHARLES PAUL, K.C.I.E., *Advocate-General*.
 The HON'BLE F. B. PEACOCK.
 The HON'BLE P. NOLAN.
 The HON'BLE T. T. ALLEN.
 The HON'BLE SIR HENRY HARRISON, K.T.
 The HON'BLE SIR ALFRED CROFT, K.C.I.E.
 The HON'BLE DR. MAHENDRA LAL SIRCAR, C.I.E.
 The HON'BLE C. H. MOORE.
 The HON'BLE H. PRATT.
 The HON'BLE SHAHZADA MAHOMMED FURROKH SHAH.
 The HON'BLE DR. RASH BEHARY GHOSE.
 The HON'BLE RAJA RAMESHWAR SING BAHADUR.

RULES FOR THE CONDUCT OF BUSINESS.

THE HON'BLE SIR CHARLES PAUL moved that the Report of the Select Committee appointed to consider and amend the Rules for the Conduct of Business at the Meetings of the Council be taken into consideration.

The Motion was put and agreed to.

The HON'BLE SIR CHARLES PAUL also moved that the Rules be considered for settlement in the form recommended by the Select Committee.

The Motion was put and agreed to.

HIS HONOUR THE PRESIDENT said:—"Before putting the next question to the vote, I wish to say a few words. I am sure we are much indebted to the Select Committee for the care they have taken in considering these rules for the conduct of business.

"In going through the details there is only one point which struck me, on which I thought an alteration might possibly be made; and about that, as I am not quite sure I have understood the Rules correctly, I should like to have the opinion of the learned Advocate-General, or any other legal Member of the Council. It is a point which concerns me as President.

"In Rule 25 it is stated that 'when an amendment upon any motion is moved, or when two or more such amendments are moved, the President, when taking the sense of the Council thereon, shall read the terms of the original motion and of the amendment or amendments proposed.' So far it is all right, and I have no objection to it.

"Then the Rule goes on to say, 'and before putting any other question, shall put the question that the original motion shall stand without amendment.' After that it says:—'If that question is decided in the affirmative, the motion shall be put to the vote without amendment;' and in Rule 26 it says: 'When any one amendment is affirmed, the question shall be put to the vote and amended accordingly.'

"Now, if I have read this rule correctly, it imposes upon the President the necessity of first taking the opinion of the Council not on any one of the amendments, but upon the motion as it originally stood; that is to say, on a section of a Bill probably as amended by a Select Committee. In nine cases out of ten it would be that.

"If there is a question which strongly divides public opinion, we shall find, as a matter of practice, that a Select Committee generally takes a view which is a mean between two extremes. Let us say as an illustration, though it is not likely to happen, that a Select Committee recommends that a certain appointment shall carry a salary of Rs. 500 a month. That would probably be the mean between two extremes—one extreme being that the appointment shall not be a paid appointment at all, and another extreme that the appointment shall be paid Rs. 1,000 per mensem. If I have understood this rule correctly, I shall first have to put the motion to the Council that the pay of the appointment shall be Rs. 500. The effect of that, of course, would be to combine against that motion the advocates of the two extremes that the appointment shall not be paid, and that it shall be paid Rs. 1,000. Clearly the middle term would be thrown out. Whereas we know well from our own experience that when either of the extreme parties find that they cannot have their own way, they would much rather adopt the middle term than that the opposite extreme party shall have their way.

"If, on the other hand, it is at the discretion of the President to put any one of the amendments or the original term first as he chooses, it will then give an opportunity of taking the opinion of the Council as to the views of the two extreme parties without forcing them to combine against the middle term. But if you begin by voting upon the middle term, and then go to the extremes; if the two combine first against the one, and then against the other, you will be left in a dilemma, out of which you cannot possibly extricate yourself, and there will be no means of getting the views of the two opposite parties upon the recommendation of the Select Committee.

"The proposal I shall make to you will be that in Rule 25 after the first word 'proposed,' the next ten lines be left out down to the words 'amended

accordingly'; and that the following words be substituted for them, namely:—
'It shall be in the discretion of the President to put first to the vote either the original motion or any of the amendments which may have been put forward.'

"I should like to have the opinion of gentlemen who are more accustomed than I am to the way of doing business at public meetings, and as to the legal effect of the words which I have proposed, before I ask you to accept them. I only throw this proposal out for discussion, and not as one which I ask you to accept on my authority."

THE HON'BLE SIR ALFRED CROFT said:—"This proposal seems to me likely to get rid of a difficulty which is presented by the amended Rules as proposed by the Select Committee. These Rules (25 and 26) are a reproduction, without any change, of the existing rules. But they present certain inconsistencies which arise, as it seems to me, from the use of the word 'amendment' in two senses. It is well known that in Parliamentary usage the word 'amendment' means one thing, while in the popular sense it means quite another. According to the usage of Parliament the word 'amendment' means a proposal to alter the terms of a question by adding certain words, by omitting certain words, or by substituting certain words for certain other words. And then in voting on that amendment, you are in fact not voting on any substantive question, but only upon the form that you wish that question to take on which you are afterwards to vote as soon as its terms are settled. Dr. Smith in his 'Handy Book on Public Meetings' describes the practice of Parliament as follows:—

'The object of an amendment is to change more or less the nature of the question before the House. . . . Thus, in voting upon any amendment, whichever way a man votes he does not help to carry any question, but only decides what the question shall be which he shall have an opportunity of carrying. He does not support the original question by voting against its being amended;'

to which it may be added that, in voting for an amendment, he may do so with the object of afterwards voting against the question as so amended.

"Such then is the Parliamentary usage. The popular meaning of the word 'amendment' as it is used in India, and often at public meetings in England, is different. A proposal is put before the meeting, and against that is brought forward a counter or rival proposal, which is called an amendment. Both are discussed together, and then at the close of the debate the Chairman puts one of the two propositions (generally the amendment) to the vote of the meeting. If it is carried, the substantive question is carried; if it is lost, the original proposition is put to the vote with a similar object and result. The two meanings of the term 'amendment' are perfectly clear and distinct, but the word seems to be used in these rules sometimes in one sense and sometimes in another.

"In Rule 23, which provides that 'any member may, by motion, propose for the determination of the Council any original question or any amendment of such question,' it is probable, though the point is not quite clear, that the intention is to employ the term 'amendment' in the Parliamentary sense, namely, an alteration of the terms of the question.

"Now go on to Rule 25 which says:—"When an amendment upon any motion is moved, or when two or more such amendments are moved, the President, when taking the sense of the Council thereon, shall read the terms of the original motion and of the amendment or amendments proposed, and before putting any other question shall put the question that the original motion do stand without amendment." That clearly points to the Parliamentary usage. The President first puts the question, that the original motion do stand without amendment; in other words, he asks the Council to decide the form which the question shall take. Then the rule goes on to say:—"If that question is decided in the affirmative, the motion shall be put to the vote without amendment;" that is to say, when it has been decided that the form of the question shall not be altered, the motion is to be put to the vote in the form in which it originally stood, and at this second stage it is put of course as a substantive motion.

"If, on the other hand, the rule goes on to say, the question that the original motion do stand without amendment is decided in the negative, that is, if it is decided that the question shall be amended, you would naturally expect that the next point to be settled would be the form the question should take. But that is not so, we find; for at this point the rule changes over to the popular method of procedure. It says:—'If not (that is, if there is to be an alteration in the terms of the question) the motion shall be put to the vote as proposed to be amended;' that is to say, the motion is at once to be put to the vote in its alternative form, and the voting on it will decide the substantive question.

"But now go on to Rule 26 which says:—'When any one amendment is affirmed, the question shall be put to the vote and amended accordingly.' On neither interpretation of the word 'amendment' can I attach any sort of meaning to that clause. The question has already been amended, because the amended question has been before the meeting. More than that, the question has been put to the vote and disposed of, so that there is nothing more to be done; and consequently Rule 26 seems to me to have no meaning whatever as it stands. If, indeed, the rule means, as is probably the case, 'when any one amendment is affirmed, the question shall be amended accordingly and put to the vote,' this would no doubt be in accordance with Parliamentary practice, but it would be in direct contradiction with what has preceded in Rule 25, according to which the question has already been put to the vote and disposed of.

"The rules as they stand are consequently open to serious objection. It would, perhaps, not be difficult so to alter them as to bring them into consistency both with Parliamentary usage and with one another. But I am not sure that it is necessary to adopt the Parliamentary usage here; and on the whole it seems to me that the difficulty can be removed quite as effectually by the proposal which His Honour the President has made, and which is in conformity with popular practice."

THE HON'BLE SIR HENRY HARRISON said:—"The Hon'ble Sir Alfred Croft has given an excellent dissertation on the academical or theoretical side of the question before the Council, and I am glad to say that my experience of the practical side of the question bears out the wisdom of adopting the amendment proposed by His Honour the President.

"I have had considerable experience for some time of the practical way of dealing with a large number of simultaneous amendments; and I may say that the difficulty is partially insoluble, because sometimes you have amendments of such a kind that you cannot get the real view of the meeting upon them, as each party will vote for their own particular proposal. But the best solution lies in the amendment now proposed, because it is necessary when there are many amendments to select and to put them in such order that the views of the meeting may be clearly obtained; and it seems best that the power to do so should rest with the President of the assembly.

"For example, in the Municipality we had a certain rule for electing candidates to office. Each candidate whose name was proposed was put up and voted for; then the next and the next, till some one candidate got an absolute majority of votes. The result was that the candidate whose name was put up first had no chance, because the supporters of all the other candidates combined against him, and so on, each successive candidate having a better chance as he would get some support from the friends of the candidates already rejected. And therefore the candidates made careful calculations as to the order in which their applications should be sent in and appear in the lists, as upon that depended their chance of obtaining a number of votes from amongst the supporters of those whose names were put forward before. Similar manœuvring may be practised as regards amendments if they have to be put according to any hard-and-fast rule.

"Much the best remedy therefore is that which leaves it entirely to the President to decide which shall be put first, whether the first, second, or third amendment, or the original motion, in order to get at the sense of the meeting."

[His Honour the President asked Sir Charles Paul, as the oldest Member of the Council, whether in his experience Rules 25 and 26 have ever once been worked?]

THE HON'BLE SIR CHARLES PAUL said:—"I do not know about these Rules having been used in practice. The Select Committee adopted the existing rules with such modifications as presented themselves for consideration. They did not turn their attention to these Rules from the point of view which His Honour the President has put before the Council, and it appears to me that the proposal framed to amend these Rules is a perfectly correct proposal, namely, to give the President the right to put amendments to the Council in any order he thinks proper.

"There are cases in which it is necessary to put the amendment first, and that could not be done under the existing rule, but I may add that in point of practice the rule does not seem to be generally followed; and under these circumstances I have no objection to these Rules being amended as proposed, and it seems to me most expedient to do so."

His Honour the President then moved that, the words 'It shall be in the discretion of the President to put first to the vote either the original motion or any of the amendments which may have been brought forward' be substituted for the following in Rules 25 and 26:—

'And before putting any other question shall put the question that the original motion do stand without amendment.

'If that question is decided in the affirmative, the motion shall be put to the vote without amendment. If not, and there be but one amendment proposed, the motion shall be put to the vote as proposed to be amended; or if there be more than one amendment proposed, the question shall be put that the motion be put to the vote as proposed by the amendment which the President thinks may most conveniently be first disposed of, and so, if necessary, of all the others.

'When any one amendment is affirmed, the question shall be put to the vote and amended accordingly.'

The Motion was put and agreed to.

THE HON'BLE SIR ALFRED CROFT moved that in Rule 13, the words 'No Member in debate shall name another Member' be omitted.

He said:—"I do not know whether it is desirable to retain these words as the rule has never been observed in practice."

THE HON'BLE MR. NOLAN said:—"I submit that it will be better to alter the practice; naming a Member in a certain stage of a discussion may be objectionable."

THE HON'BLE SIR HENRY HARRISON said:—"In a rowdy assembly there would be objections to naming a Member, and in such a case it would be better to preserve the rule. But if you have a well-ordered assembly, it is better to have no such rule. It all depends upon the character of the assembly. I do not think any actual inconvenience will result from naming members in this Council."

The amendment being put, the Council divided:—

Ayes.

The Hon'ble Raja Rameshwar Sing Bahadur.
The Hon'ble Dr. Rash Behary Ghose.
The Hon'ble Shahzada Mahommed Furrokh Shah.
The Hon'ble C. H. Moore.
The Hon'ble Dr. Mahendra Lal Sircar.
The Hon'ble Sir Alfred Croft.
The Hon'ble Sir Henry Harrison.
The Hon'ble F. B. Peacock.
The Hon'ble Sir Charles Paul.

Noes.

The Hon'ble H. Pratt.
The Hon'ble T. T. Allen.
The Hon'ble P. Nolan.

So the Motion was carried.

THE HON'BLE SIR CHARLES PAUL moved that the Rules, as now settled in Council, be passed.

The Motion was put and agreed to.

CALCUTTA AND THE SUBURBAN POLICE SUPERANNUATION FUNDS BILL.

THE HON'BLE SIR HENRY HARRISON moved that the Bill to consolidate the Calcutta and the Suburban Police Superannuation Funds, as settled in Council, be passed.

He said:—"The Bill was discussed and passed at the last meeting of the Council with a small amendment of a formal character proposed by myself, and I see no possible objection to its being passed now."

The Motion was put and agreed to.

CALCUTTA PORT BILL.

HIS HONOUR THE PRESIDENT said:—"The next question on the notice paper is the discussion upon the motion that, the Report of the Select Committee on the Bill to consolidate and amend the law relating to the Port of Calcutta, and to the appointment of Commissioners for the said Port, be taken into consideration.

"But I might mention that in considering the dissents of the two Hon'ble Members who have affixed separate memoranda to the Report of the Select Committee, I got the very valuable assistance of the learned Advocate-General, and we had an informal meeting last week with the Members of the former Select Committee, who were by that time *functi officio*. The result was that a fresh clause was drafted to meet, as far as possible, the objections taken to the original one. It is the clause which you see in the notice paper in the name of the Hon'ble Sir Henry Harrison.

"But in the course of this week the Hon'ble Mr. Moore applied to me, requesting that the discussion of the matter might be postponed, as the Chamber of Commerce wished to consider the section in its latest form and to take legal opinion upon it. I am quite sure you will all agree with me that it is better to give ample time for consideration rather than to have a debate in this Council which can be avoided, and certainly rather than to have it said that we are hurrying the measure through the Council unnecessarily.

"I therefore took it upon myself to tell the Hon'ble Member that there will be no discussion to-day, and that the consideration of the measure will be postponed to the next meeting of the Council."

The consideration of the Report was, therefore, further postponed.

BENGAL VACCINATION BILL.

THE HON'BLE SIR HENRY HARRISON presented the Report of the Select Committee on the Bill to amend the Bengal Vaccination Act, 1880, and Bengal Act II, 1887.

He said:—"As a matter of fact, although this Bill is mainly a formal one, the Select Committee have made considerable changes in it. Our colleague, the Hon'ble Mr. Nolan, whom I am now permitted to name without any breach of rules, pointed out the effect of the various provisions of the Act, and has recorded a note on the subject; and the result of our consideration has been that we found first that the formal object of the Bill would be better attained not by substituting 'Calcutta' for the 'Town of Calcutta,' but by simply altering the definition of the 'Town of Calcutta,' and omitting the definition of 'the Suburbs;' and then we found no necessity for touching the amended Act at all. Because though the amending Act does refer to the Suburbs, it refers to it in a sense which requires no actual definition; it merely applies to sailors coming to the Suburbs or the Town of Howrah.

"The effect of removing the definition of the 'Suburbs of Calcutta' would not raise any difficulty in the two places in which the words are found. The words would merely remain as meaning (precincts), thus giving that protection to the precincts of Calcutta which ought to be given."

The Council adjourned to Saturday, the 1st February, 1890.

CALCUTTA;
The 24th January, 1890.

C. H. REILY,
Assistant Secretary to the Govt. of Bengal,
Legislative Dept.

FAMINE RELIEF BY DISTRICT AND LOCAL BOARDS.

REVENUE DEPARTMENT—FAMINE.

Calcutta, the 24th January, 1890.

RESOLUTION.

UNDER section 99 of the Local Self-Government Act III (B.C.) of 1885 District Boards are empowered to incur expenditure on measures for the relief of famine within such financial limits as may be prescribed by the Commissioner of the Division concerned, and the Bengal Famine Code provides that in districts to which this section of the Act has been extended, relief operations should be governed by rules to be issued under section 138. Section 99 has been already extended to Furreedpore and the districts of the Patna Division, and a notification will now issue rendering its provisions applicable to the remaining District Boards of the Province.

2. For the guidance of District Boards in the discharge of the duty of affording relief in time of distress, the Lieutenant-Governor desires to emphasise the principle which has already been enunciated in the course of the correspondence relating to the recent scarcity in Behar, and which has gained the approval of the Government of India as being in accord with the views expressed in paragraph 21 of the Resolution of that Government, No. 44Fam., dated the 9th June, 1883, on the issue of the Provisional Famine Code. That principle is that the duty of providing relief in the way of work should fall in a gradual scale with the deepening of distress, first on Local, secondly on Provincial, and lastly on Imperial Funds. District Boards must be regarded as forming an integral part of the administration, and it becomes their duty, as it is that of other departments of Government in time of serious scarcity, to subordinate the ordinary objects and methods of their expenditure to the special consideration of saving life. District Boards are the primary agency available for coping with famine, and must be expected in such crises to direct their whole resources, subject only to the maintenance of absolutely necessary works in non-affected tracts, to affording relief. This primary obligation having been carried out, it remains for Government to supplement the resources of Boards, if necessary, so as to enable them not only to combat famine, but also to perform their ordinary functions connected with the up-keep of district communications. Before, then, an appeal is made by the Boards to Government for funds, all possible expenditure, beyond that absolutely necessary for bare maintenance and establishment charges, should be diverted from non-affected to affected areas, and on the opening of relief operations, the District budgets should be remodelled with this object.

3. In order to make the action of Boards conform with the provisions of the Famine Code, the annexed rules are, under section 138 of the Local Self-Government Act, issued for their guidance.

1. In the administration of the relief of scarcity or famine, District Boards should follow the principles of the Bengal Famine Code so far as such principles apply to them. Their attention is specially required to the following rules, which should be carefully observed.

2. On relief works opened and maintained by District Boards, the wages paid to labourers should be fixed with reference to the following provisions of the Bengal Famine Code:—

“ 124. The full ration prescribed under this Code as sufficient to maintain able-bodied labourers in health and strength is—

	For a man.	For a woman.	For children.
	lb. oz.	lb. oz.	
Flour of the common grain used in the country, or cleaned rice	1 8	1 4	¾, ½ and ¼ rations according to age and requirements.
Pulse	0 4	0 4	
Salt	0 ½	0 ½	
Ghee or oil	0 1	0 ½	
Condiments and vegetables	0 1	0 1	

"125. The minimum ration for labourers under this Code is—

	For a man.	For a woman.	For children, not being infants, below 14.
	lb. oz.	lb. oz.	
* Flour of the common grain used in the country, or cleaned rice ...	1 0	0 14	$\frac{1}{3}$, $\frac{1}{4}$ and $\frac{1}{5}$ rations according to age and requirements.
Pulse ...	0 2	0 2	
Salt ...	0 $\frac{1}{2}$	0 $\frac{1}{2}$	
Ghee or oil ...	0 $\frac{1}{2}$	0 $\frac{1}{2}$	
Condiments and vegetables ...	0 $\frac{1}{2}$	0 $\frac{1}{2}$	

"126. The penal ration prescribed for labourers sent to a poor-house for refusing to work is—

	For a man.	For woman.
	lb. oz.	lb. oz.
Flour, grain or rice ...	0 14	0 12
Pulse ...	0 1	0 1
Salt ...	0 $\frac{1}{2}$	0 $\frac{1}{2}$

"127. The minimum wage under this Code is the amount of money which at the current rates authorised by the District Officer is sufficient to purchase a minimum ration.

"128. The full wage under this Code is the amount of money which at the current prices is sufficient to purchase a full ration.

"129. Payment for labour on Professional Agency works may be made at the rates ordinarily given under the rules in force in the Public Works Department, provided that the sum which a labourer can ordinarily be expected to earn by a fair day's labour shall in no case be less than the full wage prescribed in section 128.

"130. Payment for labour on Civil Agency works, where payment is made by results, shall be so arranged that the sum which able-bodied labourers can ordinarily be expected to earn shall be as nearly as possible equal to the full wage prescribed by section 128.

"131. Payment for labour on Civil Agency works, where made according to task, shall be arranged at the discretion of the civil officer in charge:

"Provided that in no case it be greater than 75 per cent. of the full wage, nor less than the minimum wage prescribed in this chapter."

3. Every District Board maintaining a relief work shall make a progress return to the District Officer for each week ending on Saturday night in the annexed form.

4. In making the above return, the District Board shall also note—

- (a) the physical condition of the labourers, and of those seeking relief;
- (b) the numbers who have been rejected from the work, and the reasons for rejection;
- (c) the causes of any refusal to work or failure to accomplish the full task, and the action taken;
- (d) the sufficiency or insufficiency of the scale of wages of payment for piece-work;
- (e) any other information which it is expedient to communicate.

5. When a District Board opens and maintains temporary poor-houses and places for the distribution of food, gratuitous relief shall be limited to the following classes of persons, and shall be given to them only when they have no relatives able and, by the custom of the country, bound to support them:—

- (a) Idiots and lunatics.
- (b) Cripples.
- (c) Blind persons.
- (d) All who from age or physical weakness are incapable of earning their living.
- (e) All persons whose attendance on the sick, or on infant children in their own homes, is absolutely necessary.

6. No person may be admitted to a poor-house except—

- (1) persons who, being unfit for employment on works, cannot be conveniently sent to their homes;
- (2) persons who, being fit for employment on works, refuse to labour.

7. The site of the poor-house should be chosen with regard to the following circumstances:—

- (1) It should be within easy reach of the head-quarters of the District Board, or of some official delegated to act as visitor.
- (2) It should be situated on the outskirts of a village or town.
- (3) The situation should be healthy.
- (4) The drainage should be good.
- (5) An ample supply of water for drinking and bathing purposes should be available.

* The flour should be that of the coarsest cereal or millet ordinarily consumed and commonly purchaseable in the bazar: where rice is made the standard of age it should be cleaned rice. The price should be that at which the flour or rice is sold at the bazar attached to or nearest to the relief work: if flour is not sold, the price should be based on that at which the grain is sold. In calculating the price of flour, it should be remembered that flour is always dearer than the grain of which it is composed. This seems a simple method for instruction, but it had recently been forgotten, and wages have been based on the price of the grain not of the flour. Thus, if barley is selling at one anna a pound, a pound of barley should be priced about 1 $\frac{1}{2}$ anna (Mr. Elliott's Draft Code of Famine Relief, Chapter II, paragraph 13).

8. Arrangements shall be made to ensure that relief is not unnecessarily given, and that, when given, it reaches the persons for whom it is intended.

9. So far as may be, consideration shall be shown to persons of respectable position and family who are reduced to starvation. Such persons shall not be forced to labour on the works, but shall, wherever possible, be employed as overseers of gangs, supervisors, accountants or clerks on the works. If no suitable work can be found for them, they may be admitted to gratuitous relief. A list of all such persons so admitted shall be sent weekly to the District Officer.

10. In cases where District Boards undertake the whole system of charitable relief, the following further rules will apply:—

- (i) Artizans who require relief shall be employed, as far as possible, in their own trades and in localities where the members of any particular trade or calling are numerous. Preference may be given to works which will provide employment for men of such trade or calling.
- (ii) In localities where weavers are numerous, the District Board may arrange for the distribution of thread, and the payment for cloth woven, at the market price.
- (iii) If the market price is so low that a weaver cannot support himself, the price given may be raised, with the sanction of the Commissioner, to such an extent as may be necessary.

11. In order that the expenditure on account of the relief of scarcity or famine may be clearly shown in the budget estimates, the major head "Famine relief" is to be divided into the following minor heads:—

- (i) Relief works.
- (ii) Temporary hospitals, poor-houses, orphanages.
- (iii) Gratuitous relief.
- (iv) Extra medical or other assistance.

Form No. II, referred to in Rule 11 of the rules under section 138, clauses (v) and (r) of the Local Self-Government Act, published under notification dated 16th September 1886, in the Municipal Department, is to be corrected accordingly.

ORDER.—Ordered that a copy of this Resolution be forwarded to all Commissioners and District Officers, and, through the latter, to all District Boards, for information and guidance.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,

Secretary to the Government of Bengal.

FORM OF PROGRESS RETURN.

See Rule 3.

FAMINE RELIEF WORKS.

DISTRICT OF _____

Progress Return for the week ending on night of Saturday, the _____.

Description of work.	Date of the week.	NUMBER OF PERSONS EMPLOYED.									Quantity or portion of work done during the week.	TOTAL AMOUNT DISBURSED AS WAGES.									Total number of infirm persons unfit to work and dependent on labourers employed on the work during the week.	Total amount of wages paid to such persons during the week.	How long the work is likely to give employment.	REMARKS.	
		Class A.			Class B.			Class C.				Class A.			Class B.			Class C.							
		Men.	Women.	Children.	Men.	Women.	Children.	Men.	Women.	Children.		Men.	Women.	Children.	Men.	Women.	Children.								
	Sunday	...									The following progress has been made.														This work will give employment to labourers for days.
	Monday	..																							
	Tuesday	...																							
	Wednesday	...																							
	Thursday	...																							
	Friday	...																							
	Saturday	...																							
	Total	...																							

NOTE.—"Class A" stands for able-bodied persons accustomed to labour.

"Class B" stands for able-bodied persons not so accustomed.

"Class C" stands for persons not able-bodied, but fit for light employment of the kind required at the work.

LIBERALITY OF RAJAH RUN BAHADUR SINGH, OF TIKARI.

Dated Calcutta, the 28th January 1890.

From—SIR JOHN EDGAR, K.C.I.E., C.S.I., Chief Secretary to the Government of Bengal,

To—The Commissioner of Patna.

I AM directed to acknowledge the receipt of your letter No 21G, dated the 9th instant, in which you report that Rajah Run Bahadur Singh, of Tikari, has contributed a sum of Rs. 25,000 to form the nucleus of a trust fund for the purpose of establishing a lady doctor in Gya.

2. In reply, I am to request that you will be so good as to convey to Rajah Run Bahadur Singh an expression of the Lieutenant-Governor's appreciation of his public spirit and liberality. The correspondence will be published in the *Calcutta Gazette*.

No. 21G, dated Bankipore, the 9th January 1890.

From—JOHN BOXWELL, Esq., Offg. Commissioner of the Patna Division,

To—The Secretary to the Government of Bengal, Medical and Municipal Depts.

I HAVE the honour to report, for the information of Government, that Babu (now Rajah), Run Bahadur Singh, of Tikari, has contributed a sum of Rs. 25,000 to form the nucleus of a trust fund for the purpose of establishing a lady doctor in Gya.

2. Other subscriptions have raised the total to over Rs. 28,000. Under the Magistrate's care the fund is likely to grow rapidly.

3. The Magistrate has requested me to bring specially to the notice of Government this most generous action of Rajah Run Bahadur Singh.

Rainfall, Weather, and State and Prospects of the Crops.

Statement showing Rainfall, Weather, and State and Prospects of the Crops in the different districts of Bengal, as reported to Government, during the week ending the 25th January, 1890.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.	
BENGAL.				
Western Districts.				
BURDWAN DIVN.	1 Burdwan Jan. 25, '90	0.12	Weather—cloudy and rather warm. Prospects of <i>rubbi</i> not very favourable. Sugarcane good. Prices of common rice :— <div style="float: right; text-align: right;">Srs. Burdwan ... 17½ Culina ... 16 Cutwa ... 16½ Raneegunge ... 20 } per rupee.</div>	
	Raneegunge ...	0.05		
	2 Bankoora „ 25, '90	0.07		
	3 Birbhum „ 25, '90			
	4 Midnapur „ 25, '90	Nil		
				Weather—seasonable. Rice harvest in the Sudder subdivision completed with 12 annas outturn, but still going on in Contai and Tamruk. Prices of rice :— <div style="float: right; text-align: right;">Srs. Sudder ... 16 Contai ... 24 (new) Tamruk ... 16 Ghatal ... 18 } per rupee.</div>
	5 Hooghly „ 25, '90	Nil	Hot weather making appearance. <i>Rubbi</i> crops thriving well and promise a good outturn. Potatoes specially good. Prices of common rice :— <div style="float: right; text-align: right;">Srs. Sudder and Serampore ... 12½ Jehanabad ... 17½ } per rupee.</div>	
	Howrah „ 25, '90	0.52	Weather—cool. Prospects of crops good. Rain on 25th instant has done good. Harvesting of <i>amun</i> crop finished. Prices of common rice :— <div style="float: right; text-align: right;">Srs. Howrah ... 12½ Uluberia ... 15½ } per rupee.</div>	
	Central Districts.			
	6 24-Pergha. Jan. 25, '90	1.07	Weather—seasonable, but cloudy. Harvesting of <i>amun</i> crop progressing quickly. Winter crops doing well. Price of rice varies from 15 to 17 seers a rupee.	
	7 Naddea „ 25, '90	Nil	Weather—seasonable. <i>Kalai</i> , <i>mung</i> , and mustard are being harvested. Other winter crops doing well.	
	Kooshtea ...	0.15		
	Meherpur ...	0.10		
	Choondanga ...	0.05		
	8 Khoolna „ 25, '90	1.04	Weather—seasonable. <i>Amun</i> harvest still progressing; outturn good. Winter crops doing well. The rain of the week will do good to the <i>rubbi</i> crops.	
Bagirhat ...	0.5			
9 Jessore „ 25, '90	1.55	Rain on the 24th. Harvesting of <i>amun</i> rice nearly completed except on low lands. Cold-weather crops doing fairly well. Prices of rice stationary.		
Jehanabad ...	0.18			
Magura ...	0.25			
Narail ...	0.03			
10 Moorsshedabad „ 25, '90	0.12	Weather—clear and cold. <i>Amun</i> harvesting almost completed. <i>Rubbi</i> promises well.		
11 Dinagepur „ 25, '90	Nil	Weather—very cloudy yesterday (24th), and this (25th) morning very foggy. Rice harvest almost over, and prospects favourable. Mustard crop in the subdivision expected to be very poor. Pressing of sugarcane continues.		
12 Rajshahye „ 25, '90	0.14	Weather—partially cloudy and cold. The shower of rain on the 19th has done much good to the spring crops. Harvesting of <i>amun</i> is nearly over with good results. Prospects of standing crops good. Condition of <i>ganja</i> good at Nowgong. Price of rice almost stationary.		
13 Rungpur „ 25, '90	0.5	Weather—cool and cloudy with light showers of rain. Mustard is being gathered. Prospects of <i>rubbi</i> crops good. Ploughing facilitated by rain.		
Gaibanda ...	0.18			
14 Bogra „ 25, '90	0.79	Weather—seasonable. Rain on two days; on the 20th it rained with hail-stones. Reaping of <i>amun</i> nearly finished. Other crops are also being reaped. A little damage was caused by the hail of the 20th. Rice is being sold at 21 seers per rupee at head-quarters.		
Nowkhilla ...	1.14			
15 Pubna „ 25, '90	0.33	Weather—seasonable and cloudy at the latter part of the week. <i>Amun</i> crop is still being reaped. Mustard and tobacco are expected to be 12 annas crops. Recent rain has done good to crops.		
16 Darjeeling „ 25, '90	0.95	Weather—cold and cloudy with occasional rain and snow. In the hills wheat and barley continue to progress favourably, and fields are being prepared for potatoes. In the Terai harvesting of <i>amun</i> , mustard, and potatoes continues. Transplanting of tobacco nearly completed.		
17 Jalpigoree „ 25, '90	0.13	Weather—cloudy and cold. Cutting of <i>haimanti</i> paddy completed; outturn good. <i>Rubbi</i> crops doing well. Prices stationary.		

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
BENGAL—concluded.			
Eastern Districts.			
Dacca Divn.	18 Dacca Jan. 25, '90	Figures not given.	Weather—seasonable. Sowing of <i>boro</i> paddy continues. Winter crops doing well. Recent rain has done good to the standing crops. Mustard and pulses are being gathered. Fodder is available. No special change in the prices of food-grains. Common rice sold at from 14 to 16½ seers per rupee during the week.
	19 Ferre-dpur „ 25, '90	1.45	Weather—seasonable. Mornings occasionally foggy and cloudy. State and prospects of <i>rubbi</i> crops continue fair. Cultivation and sowing of <i>joli</i> and <i>boro</i> in progress. Rain has done much good to the standing crops. Coarse rice selling at 14 seers per rupee in Sudder, 17 seers in Goalundo, and 14½ seers in Madaripur. Outturn of <i>aman</i> paddy did not exceed 10 annas in Sudder owing to the damage done by unusual flood. From Goalundo and Madaripur it is reported to be 16 and 14 annas respectively.
	20 Backergunge „ „	..	Report not received.
	21 Mymensingh „ 25, '90	1.16	On the night of the 19th rain fell accompanied by strong wind and hailstones, and there was rain also on the 24th. Weather cool and sometimes cloudy. Rain has done much good to standing crops. Harvesting of <i>aman</i> paddy nearly completed. Mustard and pulses are still being gathered. Transplanting of <i>boro dhan</i> continues. Common rice sells at 13 seers 5 chittacks per rupee.
Chittagong Divn.	22 Chittagong „ 25, '90	0.66	Weather—seasonable. Prospects and state of winter crops good.
	23 Noakholly „ 25, '90	0.39	Weather—cloudy; rather warm for the season. <i>Rubbi</i> crops getting on well. Late rain has done some good to the crops.
	24 Tipperah „ 25, '90	0.45	Weather—seasonable. Recent rain has benefited the winter crops. Mustard is being collected. Transplanting of <i>boro dhan</i> going on.
	Brahmanberiah „ „	1.19	
	Chandpur „ „	0.55	
BEHAR.	25 Chittagong Hill Tracts „ 24, '90	0.08	Weather—very cold with dense fogs in the mornings throughout the week, except on the morning of the 20th, which was cloudy with drizzling rain. Tobacco, chillies, and other winter crops progressing. Gathering of mustard commenced in some places.
	Hill Tipperah Jan 25, '90	0.30	Weather—cloudy. Reaping of <i>aman</i> paddy finished. Chillies and tobacco doing well.
	26 Patna „ 25, '90	0.03	Weather—cloudy towards the end of the week. Slight showers of rain on the night of the 23rd. Harvesting of paddy over. Prospects of <i>rubbi</i> continue good. Mustard promising. Poppy flowering and looks well. Prices of food-grains almost stationary.
PAUNA Divn.	27 Gya „ 25, '90	Nil	Weather—cold and cloudy. Prospects of poppy and <i>rubbi</i> good. Harvesting of paddy still going on. Food-stock sufficient.
	28 Shahabad „ 25, '90	Nil	Weather—cloudy with north-easterly wind. Prospects of all <i>rubbi</i> crops continue good. They are now in ear. A shower of rain would be beneficial. Poppy thriving and coming into flower. Pressing of sugarcane going on. Prices stationary.
	29 Durbhunga „ 25, '90	0.23	Weather—latter part of the week cloudy throughout district. Rain last night (24th) at head-quarters. It will greatly benefit the <i>rubbi</i> crops, wheat and barley, the prospects of which are very favourable. Tobacco is being harvested. Poppy doing well. Price of common rice ranges from 19 to 21½ seers per rupee.
	30 Mozufferpur „ 25, '90	Figures not given.	Weather—cloudy; slight rain on the 24th. All standing crops doing well. Mustard crop commencing to be cut.
BHAULPOOR Divn.	31 Sarun „ 25, '90	Nil	Weather—clear, but occasionally cloudy. Weather unfavourable for poppy. Prospects of this crop, however, continue good. <i>Rubbi</i> crops, including mustard, look well. Sugarcane pressing is in full progress.
	32 Chumparun „ 25, '90	0.99	Weather—clear and cold to-day (25th). Rain fell on the 23rd and on the night of the 24th, immensely benefiting the standing crops of <i>rubbi</i> and poppy, but slight damage is apprehended to wheat. Indigo fields are being prepared. Sugarcane is being pressed. Prices of food-grains stationary.
	33 Monghyr „ 25, '90	Nil	Weather—cold and cloudy at the latter part of the week. <i>Rubbi</i> crops doing well. Prospects of poppy fair.
	34 Bhagulpur „ 25, '90	Nil	Weather—rather too warm and cloudy. Mornings foggy. Prospects promising, but rain wanted for <i>rubbi</i> crops.
	35 Purneah „ 25, '90	0.02	Weather—cloudy and cold with west wind. Mustard is being harvested. Tobacco and <i>rubbi</i> crops doing well, but want a shower of rain. Early ploughings going on.
	36 Maldah „ 25, '90	Nil	Weather—mornings foggy and occasionally cloudy. Days and nights hot. Harvesting of winter rice over. <i>Kalai</i> and mustard are still being gathered. Transplanting of <i>boro</i> paddy going on. Wheat promising. Prospects of other standing crops good. Common rice selling at an average of 17 seers per rupee.
	37 Sonthal Pergas „ 25, '90	0.02	Weather—cold and seasonable. Threshing of paddy continues with average outturn. Prospects of <i>rubbi</i> crops good.

No.	District and date of return.	Rainfall at Sudder Station in inches.	Character of the weather and state and prospects of the crops.
ORISSA.			
38	Cuttack Jan. 25, '90	Nil	Weather—seasonable. Prospects of crops continue good.
39	Pooree „ 24, '90	Nil	Weather—seasonable. Harvesting of winter rice (late <i>sarad</i>) still continues in the Sudder subdivision, but is finished in the Khorda subdivision. <i>Dalua</i> and <i>mung</i> crops doing well. Price of common rice varies from 21 to 29 seers per rupee in the Sudder subdivision and 20 to 27 seers in the Khorda subdivision.
40	Balasore „ 25, '90	Nil	Weather—seasonable. <i>Rubbi</i> crops doing fairly well.
CHOTA NAGPORE.			
South-West Frontier Agency.			
41	Hazaribagh Jan. 25, '90	Nil	Weather—cold and seasonable. Crops generally very promising. A little rain is needed.
42	Lohardugga „ 25, '90	0.01	Weather—cloudy. Prospects of <i>rubbi</i> crops good. Rain much wanted in the subdivision. Lac gathering finished in Palamow; yield 12 annas on the average.
43	Singbhoom „ 25, '90	Nil	Weather—seasonable. Oilseeds and pulses are expected to give an outturn of from 12 to 16 annas. Prospects favourable.
44	Manbhoom „ 26, '90	Nil	Weather—seasonable. Prospects of <i>rubbi</i> crops good. Sugarcane is being pressed; probable outturn 12 annas. Coarse rice selling in the Purulia market at 22 seers per rupee.

Published for general information.

CALCUTTA; REVENUE DEPT.,
The 28th January, 1890.

P. NOLAN,
Secy. to the Govt. of Bengal.

Meteorological Report of the Province of Bengal

			STATION OBSERVATIONS.												
METEOROLOGICAL DIVISION.	DISTRICT.	Representative station.	AIR PRESSURE.			WIND.		TEMPERATURE.						Mean of day.	
			Mean barometric height, h. a.m.	Mean reduced to sea-level.	Variation from mean.	Prevailing direction.	Mean wind velocity.	Highest during week.	Date.	Lowest during week.	Date.	Mean maximum temperature.	Mean minimum temperature of week.		Mean daily temperature of week.
ORISSA.	Pooree	Pooree	29.948	29.961	—	N	147	85.7	21st Jan.	62.5	18th Jan.	82.4*	65.6*	74.0*	—
	Gopalpore	Gopalpore	29.943	29.984	—0.079	NNW	126	82.2	21st	63.4	18, 19	81.0	65.3	73.2	+2.7
	False Point	False Point	29.939	29.961	—0.122	NW	158	85.9	21st	67.9	18th	81.1	65.5	71.8	+3.2
	Cuttack	Cuttack	29.987	29.981	—0.008	Calm	26	88.9	24th	59.8	18th	86.1	61.7	78.9	+1.4
SOUTH-WEST BENGAL.	Balasore	Balasore	29.914	29.976	—0.114	NNW	76.6	85.4	20th	53.5	21st	82.5	57.8	70.2	+2.4
	South-West Midnapore	Sangor Island	29.935	29.962	—0.118	Variable	224	79.7	20th	59.9	18th	77.6	54.4	71.1	+2.9
	South 24-Pargunnahs	Midnapore	29.815	29.973	—0.127	Calm	25.0	86.3	20th	55.2	18th	83.3	58.6	71.0	+4.1
	Midnapore	Midnapore	29.815	29.973	—0.127	Calm	25.0	86.3	20th	55.2	18th	83.3	58.6	71.0	+4.1
	24-Pargunnahs	Calcutta	29.940	29.963	—0.126	Variable	58	81.5	20th	55.8	18th	78.9	59.5	69.2	+3.3
	Hograh	Burdwan	29.853	29.964	—0.131	North-westerly.	40.8	85.5	20th	55.8	18th	80.7	59.8	70.2	+3.8
	Hoghrly	Bankoora	29.961	29.980	—0.100	Calm	42	83.6	24th	55.6	18th	81.2	58.0	69.6	+5.7
	Burdwan	Bankoora	29.961	29.980	—0.100	Calm	42	83.6	24th	55.6	18th	81.2	58.0	69.6	+5.7
	Bankoora	Bankoora	29.961	29.980	—0.100	Calm	42	83.6	24th	55.6	18th	81.2	58.0	69.6	+5.7
	Beerbhoom	Raneegunge	29.826	29.977	—0.124	Calm	35.8	85.5	20th	56.1	18th	81.6	58.5	70.0	+4.1
EAST BENGAL.	West Burdwan	Raneegunge	29.826	29.977	—0.124	Calm	35.8	85.5	20th	56.1	18th	81.6	58.5	70.0	+4.1
	Moorsheadabad	Berhampore	29.886	29.957	—0.132	Variable	34.1	80.6	20th	56.2	18th, 19th Jan.	78.5	57.6	68.1	+3.3
	Nudda	Krishnagar	29.914	29.983	—0.114	WNW	69.0	85.6	20th	53.9	18th	80.2	57.7	68.9	+4.6
	Jessore	Jessore	29.921	29.956	—0.123	Calm	27.2	81.7	20th	56.5	18th	79.8	59.1	69.4	+3.9
	Kheolna	Chittagong	29.872	29.967	—0.113	North-westerly.	40.9	81.1	19, 20, 23	56.1	18th, 19th Jan.	79.6	58.2	68.8	+2.8
	Chittagong	Chittagong	29.872	29.967	—0.113	North-westerly.	40.9	81.1	19, 20, 23	56.1	18th, 19th Jan.	79.6	58.2	68.8	+2.8
	Chittagong Hill Tracts	Demagiri	29.944	29.957	—0.106	Calm	35.8	79.3	19th Jan.	56.1	18th	78.1	59.4	68.8	+4.2
	Backergunge	Barrisal	29.944	29.957	—0.106	Calm	35.8	79.3	19th Jan.	56.1	18th	78.1	59.4	68.8	+4.2
	Noakholly	Noakholly	29.915*	29.961*	—	N	68.4	81.3	19th	54.9	18th	79.5	56.5	68.0	—
	Furreedpore	Furreedpore	29.931	29.973	—0.096	Calm	35	74.0	22nd	56.0	18th	73.7	58.3	66.0	+2.2
NORTH BENGAL.	Dacca	Dacca	29.931	29.964	—0.122	North-easterly.	57.9	81.1	20th	56.8	22nd, 23rd Jan.	79.8	57.7	68.7	+2.3
	Tipperah	Commillab	29.933	29.972	—0.094	North-easterly.	21.7	80.9	20th	56.0	18th, 23rd Jan.	79.2	57.3	68.2	+3.5
	Mymensingh	Mymensingh	29.910	29.970	—0.150	E	40.3	77.9	19th	55.8	21st	76.3	57.5	66.9	+3.6
	Bogra	Bogra	29.879	29.946	—0.104	Calm	34.2	79.6	20th	53.1	18th	77.6	55.3	66.4	+3.1
	Pubna	Serajunge	29.907	29.956	—0.115	NE	22.6	79.5	20th	52.5	23rd	78.2	55.2	66.7	+3.4
	Rajshahye	Rampore Beau- leah.	29.884	29.957	—0.095	Variable	72.3	80.1	20th	55.7	18th, 22nd Jan.	77.7	57.3	67.5	+3.5
	Maldah	Maldah	29.899	29.983	—	NW	59.8	79.7	20th	52.7	18th	78.5*	53.5*	66.0*	—
	Dinapore	Dinapore	29.869	29.987	—0.098	NE	52	79.1	23rd	52.2	18, 19, 23 & 23 Jan.	77.6	53.8	65.7	+2.8
	Rungpore	Rungpore	29.865	29.994	—0.078	ENE	20	79.6	21st	51.9	18th, 23rd Jan.	77.5	53.4	65.4	+3.7
	Julpigoree	Julpigoree	29.685	29.989	—0.085	NE	?	?	?	51.9	21st	?	53.8	?	?
SOUTH BENGAL.	Cooch Behar	Cooch Behar	29.685	29.989	—0.085	NE	?	?	?	51.9	21st	?	53.8	?	?
	Darjeeling Hill Tracts	Darjeeling	22.908	—	—	WSW	138.1	53.9	19th	34.7	20th	53.5*	53.7	44.5*	+5.3
	Purneah	Purneah	29.835	29.969	—0.116	Calm	28.5	76.2	22nd, 23rd, 24th Jan.	56.5	19th	75.3	52.4	63.9	+2.4
	North Bhagulpore	Purneah	29.835	29.969	—0.116	Calm	28.5	76.2	22nd, 23rd, 24th Jan.	56.5	19th	75.3	52.4	63.9	+2.4
	Moanfierpore	Moanfierpore	29.807	29.985	—0.109	ENE	53	77.4	24th Jan.	55.4	19th	76.3	56.7	66.5	+4.7
	Durbhunga	Durbhunga	29.743	29.986	—0.089	North-easterly.	81.2	76.2	22nd-24th Jan.	49.9	15th, 22nd Jan.	78.2	52.2	63.7	+4.3
	Chumpra	Motihari	29.743	29.986	—0.089	North-easterly.	81.2	76.2	22nd-24th Jan.	49.9	15th, 22nd Jan.	78.2	52.2	63.7	+4.3
	Saran	Chupra	29.767	29.972	—0.093	South-easterly.	33.5	78.3	24th	51.0	18th	77.0	54.7	65.8	+6.0
	Shahabad	Dehree	29.695	29.982	—0.119	SSW	97.9	81.8	24th	51.3	18th	79.6	54.5	67.0	+5.5
	Gya	Dehree	29.716	29.974	—0.129	ENE	62.1	81.4	24th	50.9	22nd	78.4	53.7	66.0	+4.4
GUAJIRA NAUTICA.	Arrah	Arrah	29.761	29.968	—0.105	Calm	40.5	80.2	24th	51.9	18th	78.1	53.4	66.8	+5.3
	Gya	Gya	29.574	29.975	—0.126	Southerly	91.1	82.6	24th	52.4	18th	80.0	54.7	67.4	+5.8
	Pains	Bankipore	29.781	29.975	—0.129	Variable	23.3	78.9	24th	53.0	19th	76.9	55.0	66.2	+3.6
	South Bhagulpore	Bhagulpore	29.787	29.959	—0.122	Calm	20	79.8	24th	53.5	19th	77.2	54.6	65.9	+5.3
	Sonthal Pargunnah	Doomka	29.442	29.971	—	Calm	47.8	80.9	20th	52.6	18th	79.3	55.3	67.3	—
GUAJIRA NAUTICA.	Hazaribagh	Hazaribagh	27.962	29.979	—0.105	South-westerly.	147.9	80.7	20th	53.8	21st, 22nd Jan.	77.5	55.8	66.7	+5.1
	Lohardugga	Ranchee	27.774	29.974	—0.104	Calm	163.7	82.0	20th	50.5	21st	77.7	53.1	65.4	+4.0
	Manbhoom	Manbhoom	27.774	29.974	—0.104	Calm	163.7	82.0	20th	50.5	21st	77.7	53.1	65.4	+4.0
Singbhoom	Chyebassa	29.193	29.995	—	SW	28.6	85.8	20th	52.7	18th	82.9	56.0	69.5	—	

* Means of six days. † Means of five days.
 Explanation.—Summary.—The normal means of air pressure and temperature are the arithmetical average or means of the reading during the same period for the
 The humidity of the atmosphere is expressed as percentage, saturated air being presumed by 100. A clear sky is denoted by 0 and an overcast sky by 10. The num-
 are the numerical means or average of the rainfall in that district determined from the returns sent in by the subdivisional station for the period in question during the
 stations in the district sending in returns divided by the number of stations. A rainy day is one on which at least hundredth of an inch fell.

for the week ending Friday, the 24th of January 1890.

DISTRICT OBSERVATIONS.															Representative station.	DISTRICT.	METEOROLOGICAL DIVISION.
Average humidity at 5 A.M.	Average cloud amount at 8 A.M. for week.	Rainfall of week at observing station.	OF WEEK.		RAINFALL.												
			Mean for district.	Normal mean.	Since 1st of month.			Since 15 h May 1889.			Average number of rainy days.	Normal number of rainy days.					
					Mean for district.	Normal mean.	Variation.	Mean for district.	Normal mean.	Variation.							
85	0	Nil	Nil	0'07	Nil	0'14	-0'14	74'88	55'31	+19'57	0'0	0'2	Pooree	Pooree	ORISSA.		
72	0'1	Nil											Gopalpore				
91	0'9	Nil											False Point				
79	0'7	Nil	Nil	0'06	Nil	0'16	-0'16	66'24	51'71	+14'53	0'0	0'2	Cuttack	Cuttack	ORISSA.		
68	0	Nil	Nil	0'04	Nil	0'19	-0'19	49'89	52'79	-2'90	0'0	0'2	Balasore	Balasore			
93	1'0	Nil	Nil	0'07	Nil	0'23	-0'23	58'43	62'24	-3'81	0'0	0'3	Saugor Island	South-West Midnapore			
78	0'7	Nil	Nil	0'06	Nil	0'31	-0'31	46'29	51'38	-5'09	0'0	0'2	Midnapore	South 24-Pergunnahs	SOUTH-WEST BENGAL.		
93	1'0	Nil	Nil	0'09	Nil	0'32	-0'32	53'38	51'50	+1'88	0'0	0'3	Calcutta	Midnapore			
84	0	0'12	0'04	0'10	0'04	0'21	-0'17	43'87	46'52	-2'65	0'3	0'3	Burdwan	24-Pergunnahs			
84	0	Nil	0'03	0'12	0'03	0'29	-0'17	55'91	52'40	+3'42	0'3	0'3	Bankoora	Howrah	SOUTH-WEST BENGAL.		
82	0'1	0'05	0'01	0'10	0'01	0'32	-0'31	52'45	51'50	+0'95	0'3	0'4	Raneegunge	Hooghly			
95	2'4	0'12	0'02	0'13	0'02	0'37	-0'25	51'17	50'39	+0'78	0'2	0'4	Berhampore	Bankoora	SOUTH-WEST BENGAL.		
86	1'7	Nil	0'06	0'07	0'06	0'29	-0'14	51'55	49'00	+2'46	0'6	0'3	Krishnaghar	Reerbhoom			
94	2'3	Nil	0'15	0'13	0'15	0'32	-0'17	53'54	52'39	+0'55	0'6	0'3	Jessore	West-Burdwan			
90	1'3	Nil	Nil	0'29	Nil	0'46	-0'46	100'02	113'48	-13'46	0'0	0'5	Chittagong	Moorsheadabad	SOUTH-WEST BENGAL.		
91	0'7	0'03	0'14	0'10	0'14	0'45	-0'31	77'93	76'77	+1'19	1'0	0'3	Barrisal	Jessore			
99	0'3	0'25	0'26	0'13	0'36	0'56	-0'20	90'65	106'39	-15'74	1'5	0'3	Noakholly	Khoulina			
95	0'9	Nil	1'45	0'12	1'45	0'23	+1'20	61'77	55'66	+6'11	1'3	0'3	Furzedpore	Chittagong	EAST BENGAL.		
94	1'9	0'20	0'44	0'09	0'44	0'23	+0'21	75'03	59'46	+15'57	1'0	0'3	Dacca	Chittagong Hill Tracts			
85	0'4	0'76	0'59	0'15	0'59	0'45	+0'14	56'04	69'27	-13'23	1'0	0'4	Commillah	Backergunge			
91	2'0	1'39	0'51	0'10	0'51	0'27	+0'24	88'14	67'48	+20'66	0'8	0'3	Mymensingh	Noakholly	EAST BENGAL.		
90	1'4	0'16	0'42	0'16	0'42	0'27	+0'15	65'23	57'20	+8'03	1'0	0'4	Bogra	Furzedpore			
96	0'9	0'08	0'21	0'09	0'21	0'28	-0'07	55'28	53'17	+2'11	1'0	0'4	Serajunge	Dacca			
88	0'6	0'03	0'05	0'14	0'05	0'42	-0'37	54'35	53'74	+0'61	0'3	0'4	Rampore Beaulah	Tipperah	NORTH BENGAL.		
80	1'1	Nil	Nil	0'13	Nil	0'36	-0'36	39'76	54'11	-14'35	0'0	0'4	Maldah	Mymensingh			
85	1'9	Nil	0	0'18	0	0'29	-0'29	57'37	56'89	+0'48	0'2	0'4	Dinapore	Bogra			
92	1'7	0'32	0'48	0'14	0'50	0'31	+0'19	85'63	74'03	+11'63	1'5	0'4	Rangpore	Patna	NORTH BENGAL.		
91	2'7	0'16	0'50	0'18	0'56	0'24	+0'32	117'69	111'44	+6'25	1'4	0'5	Julpigoree	Rangpore			
81	0'0	0'24	0'20	0'32	0'52	0'53	-0'61	133'27	120'81	+12'46	1'5	1'0	Darjeeling	Julpigoree			
92	1'7	Nil	0'29	0'18	0'29	0'34	-0'65	75'00	58'48	+16'52	0'4	0'4	Purneah	Cooch Behar	NORTH BENGAL.		
88	1'3	Nil	0'14	0'15	0'14	0'42	-0'31	48'77	43'63	+5'14	0'3	0'4	Mozufferpore	Darjeeling Hill Tracts			
89	2'3	0'02	0'38	0'13	0'38	0'40	-0'02	63'03	46'53	+17'40	1'0	0'3	Motihari	Purneah			
82	0'9	Nil	Nil	0'18	Nil	0'40	-0'40	40'13	42'61	-2'48	0'0	0'4	Chupra	North Bhagalpore	NORTH BENGAL.		
61	1'9	Nil	Nil	0'22	Nil	0'54	-0'54	40'07	40'14	-0'07	0'0	0'5	Dehree	Mozufferpore			
83	1'4	0'03	Nil	0'22	Nil	0'54	-0'54	40'07	40'14	-0'07	0'0	0'5	Buxar	Durbhunga			
89	2'6	Nil	Nil	0'22	Nil	0'54	-0'54	40'07	40'14	-0'07	0'0	0'5	Arrah	Chumparun	SOUTH BENGAL.		
76	1'5	Nil	Nil	0'16	Nil	0'47	-0'47	37'07	41'36	-4'29	0'0	0'5	Gya	Sarun			
87	2'0	0'03	Nil	0'13	Nil	0'40	-0'40	43'49	41'18	+2'31	0'0	0'5	Bankipore	Gya			
88	1'4	Nil	Nil	0'18	Nil	0'37	-0'37	42'43	43'45	-1'02	0'0	0'5	Bhagalpore	Patna	SOUTH BENGAL.		
87	0'3	0'02	0	0'14	0	0'30	-0'30	54'15	50'64	+3'51	0'2	0'4	Doomka	South Bhagalpore			
60	0	Nil	Nil	0'17	Nil	0'45	-0'45	43'03	50'56	-7'53	0'0	0'5	Hazaribagh	Monahyr			
67	0'3	Nil	Nil	0'21	Nil	0'60	-0'60	44'34	40'24	-4'10	0'0	0'5	Ranchi	South Bhagalpore	CHUTIA NAGPUR.		
			Nil	0'11	Nil	0'32	-0'32	38'33	46'77	-8'44	0'0	0'4		Lohardugga			
76	0	Nil	Nil	0'19	Nil	0'44	-0'44	48'76	51'22	-2'46	0'0	0'5	Chyebassa	Manbhoom			
														Singbhoom			

ten years. The variations are negative when the mean for the week is less than the corresponding normal mean, and positive when greater. The means of the district are the numerical average of the rainfall returns received in the district, i.e., from total rainfall at the subdivisional 17 years. The means of the district are the numerical average of the rainfall returns received in the district, i.e., from total rainfall at the subdivisional 17 years.

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 24th of January 1890.

Meteorological division.	District.	Station.	RAINFALL.							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1889.	Average rain-fall from 15th May to date.
			Saturday, 18th January.	Sunday, 19th January.	Monday, 20th January.	Tuesday, 21st January.	Wednesday, 22nd January.	Thursday, 23rd January.	Friday, 24th January.	Number of rainy days.	of rainfall week.				
ORISSA	Pooree	Pooree	...	...	...	...	...	...	...	NH	NH	NH	0'09	80'63	51'17
		Khurda	...	...	...	...	...	...	...	NH	NH	NH	0'14	76'57	56'38
		Bampur	...	...	...	...	...	...	...	NH	NH	NH	0'03	65'50	48'95
		False Point	...	...	...	...	...	...	...	NH	NH	NH	0'28	70'89	63'53
		Gop	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Cuttack	Pipli	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Jagatsingapore	...	...	...	...	...	...	...	NH	NH	NH	0'13	73'97	46'86
		Banki	...	...	...	...	...	...	...	NH	NH	NH	0'11	62'43	49'37
		Cuttack	...	...	...	...	...	...	...	NH	NH	NH	0'11	75'18	56'13
		Kendrapara	...	...	...	...	...	...	...	NH	NH	NH	0'24	72'03	55'02
	Balasore	Jajpore	...	...	...	...	...	...	...	NH	NH	NH	0'22	67'64	53'24
		Dharmasala	...	...	...	...	...	...	...	NH	NH	NH	?	69'25	?
		Saipore	...	...	...	...	...	...	...	NH	NH	NH	?	72'47	?
		Chandbali	...	...	...	...	...	...	...	NH	NH	NH	0'18	54'64	52'14
		Bhuddruck	...	...	...	...	...	...	...	NH	NH	NH	0'11	67'06	51'40
SOUTH-WEST BENGAL.	Midnapore	Sorah	...	...	...	...	...	...	...	NH	NH	NH	0'11	46'05	50'97
		Balasore	...	...	...	...	...	...	...	NH	NH	NH	0'21	46'61	57'67
		Jelinsore	...	...	...	...	...	...	...	NH	NH	NH	0'22	53'59	53'51
		Haripodab	...	...	...	...	...	...	...	NH	NH	NH	0'21	54'79	53'71
		Contai	...	...	...	...	...	...	...	NH	NH	NH	0'15	55'13	61'13
	24-Pergunnahs	Sangor Island	...	...	...	...	...	...	...	NH	NH	NH	0'19	56'74	60'91
		Tumlook	...	...	...	...	...	...	...	NH	NH	NH	0'22	49'40	51'03
		Midnapore	...	...	...	...	...	...	...	NH	NH	NH	0'35	46'26	48'67
		Ghatal	...	...	...	...	...	...	...	NH	NH	NH	0'26	43'19	54'42
		Kukrahaty	...	...	...	...	...	...	...	NH	NH	NH	?	59'05	?
	Howrah	Bhagwanpore	...	...	...	...	...	...	...	NH	NH	NH	?	61'72	?
		Garbeta	...	...	...	...	...	...	...	NH	NH	NH	?	46'29	?
		Diamond Har-bour	...	...	...	...	...	...	...	NH	NH	NH	0'36	63'41	58'25
		Canning Town	...	...	...	...	...	...	...	NH	NH	NH	?	57'89	?
		Alipore Jail	...	...	...	...	...	...	...	NH	NH	NH	0'47	51'89	55'64
	Hooghly	Barrackpore	...	...	...	...	...	...	...	NH	NH	NH	0'31	51'19	49'71
		Dum-Dum	...	...	...	...	...	...	...	NH	NH	NH	0'41	64'58	51'53
		Barasat	...	...	...	...	...	...	...	NH	NH	NH	0'35	57'61	49'09
		Buseerhat	...	...	...	...	...	...	...	NH	NH	NH	0'25	60'92	54'46
		Howrah	...	...	...	...	...	...	...	NH	NH	NH	0'57	59'12	51'76
	Hooghly	Moheswara (Coloherish)	...	...	...	...	...	...	...	NH	NH	NH	0'37	54'64	51'76
		Serampore	...	...	...	...	...	...	...	NH	NH	NH	0'25	55'27	49'05
		Hooghly	...	...	...	...	...	...	...	NH	NH	NH	0'23	54'95	48'05
		Jehanabad	...	...	...	...	...	...	...	NH	NH	NH	0'18	41'16	54'84
		Burdwan	...	...	...	...	...	...	...	NH	NH	NH	0'21	41'32	44'19
	Burdwan	Culina	...	...	...	...	...	...	...	NH	NH	NH	0'12	47'19	47'64
		Burdwan	...	...	...	...	...	...	...	NH	NH	NH	0'28	43'11	47'63
		Cutwa	...	...	...	...	...	...	...	NH	NH	NH	0'05	55'88	48'28
		Kansegunge	...	...	...	...	...	...	...	NH	NH	NH	0'09	53'80	?
		Mankur	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Bankura	Bankura	...	...	...	...	...	...	...	NH	NH	NH	0'14	56'79	51'29
		Bishenpore	...	...	...	...	...	...	...	NH	NH	NH	0'18	57'49	51'78
		Maiara	...	...	...	...	...	...	...	NH	NH	NH	0'17	?	51'75
		Khatra	...	...	...	...	...	...	...	NH	NH	NH	0'27	65'91	54'90
		Indas	...	...	...	...	...	...	...	NH	NH	NH	?	45'14	?
	Heerhoom	Kotalpore	...	...	...	...	...	...	...	NH	NH	NH	?	48'40	?
		Anda	...	...	...	...	...	...	...	NH	NH	NH	?	40'44	?
		Gangajalhati	...	...	...	...	...	...	...	NH	NH	NH	?	59'17	?
		Kaipore	...	...	...	...	...	...	...	NH	NH	NH	?	58'35	?
		Sonamukhi	...	...	...	...	...	...	...	NH	NH	NH	?	54'33	?
	Nudda	H. Soory	...	...	...	...	...	...	...	NH	NH	NH	0'39	59'06	53'09
		Hetampore	...	...	...	...	...	...	...	NH	NH	NH	0'19	47'07	54'19
		Rampore Haut	...	...	...	...	...	...	...	NH	NH	NH	0'41	47'78	51'43
		Boipore	...	...	...	...	...	...	...	NH	NH	NH	?	55'04	?
		Murari	...	...	...	...	...	...	...	NH	NH	NH	?	63'19	?
	Khoosna	Ranaghat	...	...	...	...	...	...	...	NH	NH	NH	0'21	55'89	46'22
		Kishnaghat	...	...	...	...	...	...	...	NH	NH	NH	0'17	42'95	45'91
		Choudanga	...	...	...	...	...	...	...	NH	NH	NH	0'05	49'86	50'90
		Meherpore	...	...	...	...	...	...	...	NH	NH	NH	0'10	53'15	47'41
		Koochta	...	...	...	...	...	...	...	NH	NH	NH	0'15	56'06	54'25
	Jessore	Satkira	...	...	...	...	...	...	...	NH	NH	NH	0'31	52'51	55'07
		Bagirhat	...	...	...	...	...	...	...	NH	NH	NH	0'50	54'90	51'22
		Khoosna	...	...	...	...	...	...	...	NH	NH	NH	0'25	56'00	54'22
		Nakipur	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Kampal	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
	Moorshedabad	Narail	...	...	...	...	...	...	...	NH	NH	NH	0'03	49'50	45'75
		Jessore	...	...	...	...	...	...	...	NH	NH	NH	0'35	62'35	54'10
		Jhenidah	...	...	...	...	...	...	...	NH	NH	NH	0'18	59'74	53'24
		Magoorah	...	...	...	...	...	...	...	NH	NH	NH	0'25	60'73	49'06
		Bongong	...	...	...	...	...	...	...	NH	NH	NH	0'22	48'01	51'04
	Chittagong	Kandi	...	...	...	...	...	...	...	NH	NH	NH	0'28	55'38	50'38
		Behampore	...	...	...	...	...	...	...	NH	NH	NH	0'12	46'28	51'19
		Lalbagh	...	...	...	...	...	...	...	NH	NH	NH	0'19	47'15	50'74
		Asimgunge	...	...	...	...	...	...	...	NH	NH	NH	0'45	?	51'10
		Jungipore	...	...	...	...	...	...	...	NH	NH	NH	0'41	55'01	49'09
	Chittagong Hill Tracts.	Lalgola	...	...	...	...	...	...	...	NH	NH	NH	0'47	59'02	50'25
		Jagunna	...	...	...	...	...	...	...	NH	NH	NH	?	43'29	?
		Akkrigun	...	...	...	...	...	...	...	NH	NH	NH	?	45'06	?
		Patkabari	...	...	...	...	...	...	...	NH	NH	NH	?	?	?
		Cor's Bazar	...	...	...	...	...	...	...	NH	NH	NH	0'44	123'50	135'48
	Backergunge	Chittagong	...	...	...	...	...	...	...	NH	NH	NH	0'49	76'42	94'29
		Kutubdia	...	...	...	...	...	...	...	NH	NH	NH	?	113'09	?
		Satkanya	...	...	...	...	...	...	...	NH	NH	NH	?	63'66	?
		Rangmati	...	...	...	...	...	...	...	NH	NH	NH	0'08	63'12	85'60
		Borna	...	...	...	...	...	...	...	NH	NH	NH	0'37	67'20	80'20
	Backergunge	Patnakhally	...	...	...	...	...	...	...	NH	NH	NH	0'45	67'20	87'47
		Peroteopore	...	...	...	...	...	...	...	NH	NH	NH	0'05	73'21	69'60
		Burrial	...	...	...	...	...	...	...	NH	NH	NH	0'09	73'71	67'48
		Bhola	...	...	...	...	...	...	...	NH	NH	NH	0'42	79'08	81'77
	...	...	...	...	...	...	...	...	NH	NH	NH	?	?	?

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 24th of January 1890 -contd.

Meteorological Division.	District.	Station.	RAINFALL							TOTAL		Total rain-fall since 1st of month.	Average total rain-fall from 1st of month.	Total rain-fall since 15th May 1889.	Average rainfall from 15th May to date.
			Saturday, 18th January 1890.	Sunday, 19th January.	Monday, 20th January.	Tuesday, 21st January.	Wednesday, 22nd January.	Thursday, 23rd January.	Friday, 24th January.	Number of rainy days.	Rainfall of week.				
EAST BENGAL -contd.	Nonkholly	Gournaddi	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	61'31	?
		Bauphal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	92'89	?
		Nonkholly	Nil	0'10	0'08	Nil	Nil	Nil	2	0'27	0'27	0'46	102'44	107'65	
		Penny	Nil	0'40	Nil	Nil	Nil	Nil	1	0'45	0'45	0'63	78'85	108'26	
	Furzedpore	Harishpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	82'96	?
		Ramganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	86'75	?
		Madairpore	Nil	0'09	0'30	Nil	Nil	Nil	2	0'39	0'39	0'39	61'85	53'35	
	Dacca	Furzedpore	Nil	1'40	Nil	Nil	Nil	Nil	1	1'40	1'40	0'15	65'70	50'97	
		Goalundo	Nil	1'35	Nil	Nil	Nil	Nil	1	1'35	1'35	0'27	67'84	52'80	
		Munshikunge	Nil	0'09	Nil	Nil	Nil	Nil	1	0'09	0'09	0'31	70'65	60'87	
		Dacca	Nil	0'22	Nil	Nil	Nil	Nil	1	0'22	0'22	0'22	73'91	58'26	
	Hill Tipperah	Narainkunge	Nil	0'44	Nil	Nil	Nil	Nil	1	0'44	0'44	0'12	60'89	50'17	
		Manickkunge	Nil	0'51	Nil	Nil	Nil	Nil	1	0'51	0'51	0'27	68'50	49'84	
		Joydebpore	Nil	1'10	Nil	Nil	Nil	Nil	1	1'10	1'10	?	67'77	?	
		Agartala	Nil	0'18	Nil	Nil	Nil	Nil	1	0'18	0'18	0'48	44'26	61'29	
	Tipperah	Comilla	Nil	0'45	Nil	Nil	Nil	Nil	1	0'45	0'45	0'40	62'02	75'02	
		Chandpore	Nil	0'35	Nil	Nil	Nil	Nil	1	0'35	0'35	0'29	65'37	72'54	
		Brahmunberia	Nil	1'19	Nil	Nil	Nil	Nil	1	1'19	1'19	0'53	51'87	61'45	
		Ramchandrapore.	Nil	0'29	Nil	Nil	Nil	Nil	1	0'29	0'29	?	69'43	?	
	Mymensingh.	Nasirnagar	Nil	0'20	Nil	Nil	Nil	Nil	1	0'20	0'20	?	30'89	?	
		Daudkandi	Nil	0'72	Nil	Nil	Nil	Nil	1	0'72	0'72	?	23'01	?	
		Kosha	Nil	0'30	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	62'44	?	
		Laksham	Nil	0'30	Nil	Nil	Nil	Nil	1	0'30	0'30	?	69'30	?	
		Kishoreganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'45	69'56	62'24	
		Atia (Tangail)	Nil	0'84	Nil	Nil	Nil	Nil	1	0'84	0'84	0'33	61'84	55'41	
		Mymensingh	Nil	1'10	Nil	Nil	Nil	Nil	1	1'10	1'10	0'22	97'71	73'65	
		Jamailpore	Nil	0'34	Nil	Nil	Nil	Nil	1	0'34	0'34	0'29	83'48	64'05	
		Netrokona	Nil	0'20	Nil	Nil	Nil	Nil	1	0'20	0'20	0'08	126'12	72'69	
		Subornakhal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	57'43	?	
		Durgapore	Nil	0'30	Nil	Nil	Nil	0'34	1	0'30	0'30	?	150'25	?	
		Sherepore Town	Nil	0'16	Nil	Nil	0'20	0'34	2	0'34	0'34	?	87'75	?	
Dewanganj		Nil	0'16	Nil	Nil	0'20	0'41	3	0'77	0'77	?	57'08	?		
NORTH BENGAL.	Pubna	Pubna	Nil	0'33	Nil	Nil	Nil	Nil	1	0'33	0'33	0'24	50'20	53'53	
		Serajgunj	Nil	0'08	Nil	Nil	Nil	Nil	1	0'08	0'08	0'31	60'34	52'71	
	Bogra	Sherepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'30	62'06	57'38	
		Nowkhilla	Nil	1'14	Nil	Nil	Nil	Nil	1	1'14	1'14	0'30	62'10	54'15	
		Bogra	Nil	0'20	Nil	Nil	Nil	Nil	1	0'20	0'20	0'27	70'83	60'43	
		Panchbibi	Nil	0'30	Nil	Nil	Nil	0'02	2	0'32	0'32	0'21	65'28	55'61	
	Rajshahiye	Banailah	Nil	0'14	Nil	Nil	Nil	Nil	1	0'14	0'14	0'35	46'34	52'87	
		Natore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'48	58'84	54'80	
		Naogaon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'39	67'87	51'03	
		Lalpara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	36'73	?	
Maldah	Manda	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	45'27	?		
	Maldah	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'30	50'53	51'30		
	Chanchal	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'41	28'96	50'01		
	Gajol	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	39'79	?		
Dinapore	Sibganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	51'77	?		
	Mohadepore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'31	53'63	50'13		
	Churamon	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'30	61'82	55'22		
	Baigunge	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'39	52'25	57'65		
	Dinapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'27	67'84	55'29		
	Raibachhat	Nil	0'01	Nil	Nil	Nil	0'01	1	0'01	0'01	0'22	61'29	51'12		
Kungpore	Thakurgaon	Nil	0'34	Nil	Nil	Nil	0'34	1	0'34	0'34	?	57'51	?		
	Bhawaniganj (Gyabanda)	Nil	0'15	Nil	Nil	Nil	0'02	2	0'20	0'20	0'26	57'73	61'55		
	Rangpore	Nil	0'08	Nil	Nil	Nil	0'26	2	0'28	0'28	0'30	74'78	74'26		
	Kurigram	Nil	0'65	Nil	Nil	Nil	0'05	1	0'65	0'65	0'35	91'02	73'13		
Jalpaiguri	Bagdara	Nil	0'10	Nil	Nil	Nil	0'80	1	0'80	0'80	0'32	88'40	84'96		
	(Niphamari)	Nil	0'10	Nil	Nil	Nil	0'10	1	0'10	0'10	?	79'10	?		
	Ulipore	Nil	0'03	0'27	Nil	Nil	0'02	2	0'30	0'30	0'28	123'45	116'73		
	Jalpaiguri	Nil	0'10	Nil	Nil	Nil	0'10	2	0'20	0'20	?	110'58	?		
Cooch Behar.	Alipore	Nil	0'20	Nil	Nil	Nil	0'81	2	0'60	0'60	?	128'23	?		
	Debiganj	Nil	0'21	Nil	Nil	Nil	0'81	2	1'02	1'02	?	100'94	?		
	Dinhat	Nil	0'06	0'23	Nil	Nil	0'20	2	0'29	0'29	?	132'22	?		
	(Nagarkatta).	Nil	0'04	Nil	Nil	Nil	0'44	2	0'48	0'48	0'28	98'07	96'00		
Darjeeling Hill.	Cooch Behar	Nil	0'50	Nil	Nil	Nil	0'50	1	0'50	0'50	0'22	125'89	118'08		
	Mickilganj	Nil	1'00	Nil	Nil	Nil	1'00	1	1'00	1'00	0'18	103'20	103'20		
	Matabhanga	Nil	0'03	0'27	Nil	Nil	0'03	2	0'60	0'60	0'20	118'03	111'36		
	Huxa	Nil	0'02	0'02	Nil	Nil	0'02	2	0'04	0'04	0'81	162'30	162'30		
North Bhagalpore.	Silliguri	Nil	0'02	0'02	Nil	Nil	0'02	2	0'04	0'04	0'39	120'78	102'80		
	Darjeeling	Nil	0'24	0'24	Nil	Nil	0'24	1	0'24	0'24	0'41	128'27	108'53		
	Kalimpong	Nil	0'20	0'20	Nil	Nil	0'20	1	0'20	0'20	0'32	91'72	53'18		
	Kerakong	Nil	0'70	Nil	Nil	Nil	0'05	3	1'35	1'35	?	170'23	?		
NORTH BHAR.	Purneah	Kissenkunge	Nil	1'30	Nil	Nil	Nil	Nil	1'30	1	1'30	1'30	0'37	103'47	70'18
		Arrah	Nil	0'14	Nil	Nil	Nil	Nil	0'14	1	0'14	0'14	0'28	79'75	63'34
		Purneah	Nil	0'02	Nil	Nil	Nil	Nil	0'02	1	0'02	0'02	0'36	63'47	61'31
		Gondwara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
	North Bhagalpore.	Balarampore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Matiari	Nil	Nil	Nil	Nil	Nil	Nil	0'20	1	0'20	0'20	?	?	?
		Kaliaganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'20	0'38	60'83	49'46
		Maddapore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'27	0'37	67'28	47'90
	Durbhanga	Scopol	Nil	0'31	Nil	Nil	Nil	0'31	1	0'31	0'31	?	88'10	?	
		Protaganj	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	?	
		Tajpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'25	42'44	43'15	
		Durbhanga	Nil	0'41	Nil	Nil	Nil	0'41	1	0'41	0'41	0'20	50'01	45'04	
Mozufferpore	Madhubani	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'41	0'41	28'52	44'75	
	Bahera	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	69'06	?	
	Rohara	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	?	?	55'84	?	
	Sitamarhi	Nil	0'33	Nil	Nil	Nil	0'33	1	0'33	0'33	0'37	55'30	42'54		
	Mozufferpore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'50	0'50	45'41	45'57	
	Hajipore	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	0'40	0'40	42'53	41'80	

Statement of Rainfall in Bengal for the week ending Friday (8 a.m.), the 24th of January 1890—concl.

Meteorological Division.	District.	Station.	RAINFALL.							TOTAL.		Total rainfall since 1st of month.	Average total rainfall from 1st of month.	Total rainfall since 1st of May 1889.	Average rainfall from 1st of May to date.
			Saturday, 18th January.	Sunday, 19th January.	Monday, 20th January.	Tuesday, 21st January.	Wednesday, 22nd January.	Thursday, 23rd January.	Friday, 24th January.	Number of rainy days.	Rainfall week.				
NORTH BHAR	Chumpran...	Motihari	0.00	0.00	0.00	0.00	0.00	0.00	0.54	1	0.54	0.54	0.46	75.33	44.64
		Bettiah	0.00	0.00	0.00	0.00	0.00	0.00	0.22	1	0.22	0.22	0.34	52.51	47.83
		Bughra	0.00	0.00	0.00	0.00	0.00	0.00	0.37	1	0.37	0.37	?	70.24	?
NORTH BHAR	Sarun	Burkura	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	Nil	?	51.70	?
		Gopalpur	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.29	35.43	43.02	43.02
		Nowan	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.33	44.20	43.76	43.76
SOUTH BHAR	Shahabad	Chuprah	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.41	40.74	40.30	40.30
		Buxar	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.64	47.44	38.47	38.47
		Dehree	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.02	43.06	39.18	39.18
SOUTH BHAR	Gya	Bhaboonah	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	38.16	40.37	40.37
		Sasserun	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	39.41	40.57	40.57
		Arrah	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.51	42.09	40.70	40.70
SOUTH BHAR	Mohanish	Mohanish	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	?
		Aurangabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.39	35.42	42.70	42.70
		Gya	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.41	39.85	42.46	42.46
SOUTH BHAR	Nowadah	Nowadah	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	39.59	39.50	39.50
		Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.51	33.40	39.94	39.94
		Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	34.34	?	?
SOUTH BHAR	Jehanabad	Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	26.09	?	?
		Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	32.29	?	?
		Jehanabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	17.92	?	?
SOUTH BHAR	Pakri Barawan	Pakri Barawan	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	31.90	?	?
		Paina	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.38	31.49	41.32	41.32
		Dharpore	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	45.53	41.35	41.35
SOUTH BHAR	Behar	Behar	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.42	41.08	41.90	41.90
		Barrh	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.35	35.83	39.70	39.70
		Bickram Hills	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	43.28	?	?
SOUTH BHAR	Monghyr	Monghyr	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	35.21	?	?
		Begosera	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	47.03	40.03	40.03
		Monghyr	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.31	41.07	40.70	40.70
SOUTH BHAR	Jamui	Jamui	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.46	39.43	42.32	42.32
		Gogri	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	39.19	?	?
		Sheikpura	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	43.32	?	?
SOUTH BHAR	South Bhagulpore.	Bhagulpore	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.32	45.06	42.01	42.01
		Banks	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	38.34	43.75	43.75
		Kolgong	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	46.97	?	?
SOUTH BHAR	Bangwan	Bangwan	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	?
	Sonthal Pergunnahs.	Rajmehal	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.10	59.90	52.16	52.16
		Gedda	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	49.04	47.49	47.49
		Pakour	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.21	73.50	55.93	55.93
SOUTH BHAR	Sra Doemka	Sra Doemka	0.00	0.00	0.00	0.00	0.00	0.00	1	0.02	0.02	0.50	66.77	53.72	53.72
		Deochur	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.36	40.40	50.66	50.66
		Jamuna	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	45.21	46.16	46.16
SOUTH BHAR	Mehagama	Mehagama	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	56.41	?	?
		Nemhat	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	55.87	?	?
CHUTTA NAGPUR.	Hazariabagh	Pachamba	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	58.90	47.31	47.31
		(Giridi).	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.41	49.10	46.16	46.16
		Hazariabagh	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.40	36.24	46.16	46.16
CHUTTA NAGPUR.	Santagurab	Santagurab	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.03	47.99	47.99	47.99
		Mahadi Hills	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.54	45.00	42.71	42.71
		Jhoomra Hills	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	31.36	?	?
CHUTTA NAGPUR.	Barhi	Barhi	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	46.04	?	?
		Chitra	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	30.35	?	?
		Karagaha	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	?
CHUTTA NAGPUR.	Ramghar	Ramghar	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	?
	Lohardugga	Lohardugga	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.87	45.24	51.23	51.23
		Ranchi	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.45	55.61	51.24	51.24
		Palawan	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.51	54.19	49.13	49.13
CHUTTA NAGPUR.	Silli	Silli	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	33.69	?	?
		Balumat	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	?	?	?
		Hossainabad	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	44.40	?	?
CHUTTA NAGPUR.	Garwah	Garwah	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	28.77	?	?
	Singbhoom	Chyebasa	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.44	48.76	51.13	51.13
		Chakradhar	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	40.80	?	?
		Chhatilla	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	58.70	?	?
CHUTTA NAGPUR.	Baharagura	Baharagura	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	25.89	?	?
	Manbhoom	Parulia	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.25	45.46	45.79	45.79
		Gobindpore	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	0.37	33.19	44.83	44.83
		Raghunathpore	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	45.21	?	?
CHUTTA NAGPUR.	Barrabhoom	Barrabhoom	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	44.22	?	?
		Jhaida	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	51.42	?	?
		Chas	0.00	0.00	0.00	0.00	0.00	0.00	Nil	Nil	Nil	?	59.26	?	?

Explanation.—Indicates that no rain has fallen. If the return for any day has not been received, the corresponding space is left blank. If any of the returns are wanting, the corresponding spaces in the total rainfall columns are left blank.

CALCUTTA, the 28th January 1890.

**SUMMARY OF THE METEOROLOGICAL AND RAINFALL OBSERVATIONS
TAKEN IN BENGAL FOR THE WEEK ENDING FRIDAY, THE 24TH
JANUARY 1890.**

THE meteorological conditions for the previous week had been fairly normal except that for a certain time southerly breezes had set in over parts of the province, and temperature and humidity had become decidedly above the normal. On the 18th and 19th of January the changes in the general meteorological conditions over Bengal were unimportant, but on the latter date there was evidence of the formation of a barometric depression, over the North-West Provinces. By the morning of the 20th this feeble depression, which was rather irregularly defined, had apparently travelled south-eastwards into South-West Bengal, and pressure was decidedly low at such stations as Calcutta and Saugor Island, round which area also there was a distinct but feeble cyclonic circulation of winds. With these disturbed conditions a number of rain showers occurred on the 20th in South-West and East Bengal and a few in North Bengal, but the rainfall was only important in East Bengal. On the morning of the 21st this feeble depression had passed away, and conditions became more normal for the north-east monsoon, and continued so in Bengal for the next two or three days; but in the meantime another depression was formed on the 22nd over North-Western India, and on this date its centre was apparently between Sirsa, Multan, and Jacobabad. On the morning of the 23rd the depression had moved in a south-easterly direction, and the centre on this day was apparently between Lucknow and Agra; while on the morning of the 24th the depression had again advanced in a south-easterly direction, and was beginning to make itself felt over Behar and Bengal. On this day, in fact, pressure was from a fifth to a quarter of an inch below the normal over a considerable part of Behar, Chutia Nagpur, and South-West and Central Bengal, but no very definite centre could be assigned to the depression from the observations made in the Bengal Presidency. Winds also appeared to show a rather irregular cyclonic circulation, or perhaps two circulations, the centre of one being in South Behar, and of the other in Chutia Nagpur. This, again, caused conditions to become disturbed over parts of Bengal, and rather numerous showers were reported on the morning of Friday, the 24th, over North Bengal and North Behar; but up to this time the disturbance had not advanced sufficiently far over Bengal to cause rain over the remainder of the province. At the close of the week, therefore, conditions were distinctly favourable for rain over a considerable part of the province. As is usual during the passage of barometric depressions, temperature became abnormally high, while the air was also rather largely saturated with moisture; the sky also became more or less clouded over during the passage of these depressions, so that as two of these depressions have affected the weather in the province during the week under review, the meteorological conditions have been decidedly abnormal.

Pressure—Has been below the normal almost throughout the week, and the mean pressure has been about a tenth of an inch lower than usual. The actual variations in the mean pressure are from a defect of 0.132 inch at Berhampur to one of 0.078 inch at Rungpur.

Temperature—As stated previously, has been decidedly high, particularly during the passage of the depressions, when on some days, such as the 24th, the mean temperature of most of the stations in the west and south-west of the province became from five to nearly nine degrees above the normal. The mean temperature for the whole province for the week has been 3.7° above the normal for the period; and while the excess has been fairly equally distributed, the excess temperatures have been largest in Behar and Chutia Nagpur, where they have equalled from four to four and-a-half degrees.

The actual temperatures during the week, the range from day to night, and their variations from the normal values, are best seen in the following table, where the average maximum, minimum and mean temperatures for the week at nine typical stations in different districts of the province are given, together with the normal values. In both day and night temperatures in all districts of the province it will be seen that temperatures have been decidedly high:—

Table showing the excess or defect of the actual mean temperature from the normal for the week ending 24th January 1890.

	Normal mean maximum temperature for the week ending 24th January.	Actual mean maximum temperature for the week ending 24th January 1890.	Variation of actual mean from the normal.	Normal mean minimum temperature for the week ending 24th January.	Actual mean minimum temperature for the week ending 24th January 1890.	Variation of actual mean from the normal.	Normal mean daily temperature for the week ending 24th January.	Actual mean daily temperature for the week ending 24th January 1890.	Variation of actual mean from the normal.
Cuttack	85.0	86.1	+1.1	59.8	61.7	+1.9	72.4	73.9	+1.5
Calcutta	76.7	78.9	+2.2	54.8	59.2	+4.4	65.8	69.2	+3.4
Dacca	78.5	79.8	+1.3	54.0	57.7	+3.7	66.6	68.7	+2.1
Burdwan	78.5	80.7	+2.2	54.2	58.8	+4.6	66.4	70.2	+3.8
Patna	72.9	76.9	+4.0	49.5	55.3	+5.8	61.2	66.2	+5.0
Gya	75.9	80.9	+5.0	51.1	54.7	+3.6	63.5	67.4	+3.9
Purneah	74.7	78.3	+3.6	48.2	52.4	+4.2	61.4	63.9	+2.5
Hazaribegh	72.7	77.3	+4.6	50.3	55.8	+5.5	61.5	66.7	+5.2
Darjeeling	44.4	53.5	+9.1	34.0	35.7	+1.7	39.2	44.5	+5.3

Rainfall.—The rainfall in East Bengal during the week has averaged almost half an inch, in North Bengal about a quarter of an inch, and in North Behar about a fifth of an inch. The falls in South-West Bengal only averaged a few hundredths of an inch, while in Orissa, Chutia Nagpur, and South Behar there was no rain. The districts receiving the largest amounts of rain were—in East Bengal, Furreedpur, Comillah, Mymensingh, and Dacca; in North Bengal, Julpigoree, Rungpur, and Bogra; in North Behar, Chumparun and Purneah; and in South-West Bengal, the Jessore and Khoolna districts.

The following table gives the summary of the temperature and rainfall data of each of the seven meteorological divisions of the province for the week ending Friday, the 24th of January 1890:—

METEOROLOGICAL DIVISIONS.	TEMPERATURE							RAINFALL.								
	Highest observed during week.	Lowest observed during week.	Averages for week.			Average mean of week above or below normal mean of week.	Of week.			Rainy days.			Since 1st of month.		Since 15th May 1889.	
			Of highest of each day.	Of lowest of each day.	Of mean for each day.		Average.	Normal average.	Variation.	Average number in week.	Normal average number in week.	Variation.	Average.	Normal average.	Average.	Normal average.
Orissa	88.9	53.5	82.6	62.6	72.6	+2.4	Nil	0.06	-0.06	0.0	0.3	-0.3	Nil	0.10	63.01	53.89
South-West Bengal ...	86.2	53.9	80.2	59.2	69.7	+3.7	0.04	0.10	-0.06	0.3	0.4	-0.1	0.04	0.20	52.61	51.85
East Bengal	81.3	54.0	78.0	57.8	67.9	+3.0	0.51	0.15	+0.30	0.9	0.5	+0.4	0.31	0.37	76.94	74.08
North Bengal	89.1	51.2	77.9	54.6	66.3	+3.3	0.27	0.14	+0.13	0.8	0.5	+0.3	0.29	0.30	73.41	70.17
North Behar	78.3	40.9	75.9	54.0	65.0	+4.1	0.19	0.17	+0.02	0.4	0.6	-0.2	0.19	0.30	57.85	48.58
South Behar	82.6	50.9	78.5	54.5	65.5	+4.5	0	0.17	-0.17	0	0.5	-0.5	0	0.40	44.16	43.74
Chutia Nagpur	82.0*	54.5*	77.6*	54.4*	66.0*	+4.3*	Nil	0.17	-0.17	0.0	0.5	-0.5	Nil	0.46	43.08	49.34

* Chyobassa not included.

METEOROLOGICAL OFFICE, BENGAL;
The 28th January 1890.

A. PEDLER,
Meteorological Reporter to the Govt. of Bengal.

Results of the Barometrical and Thermometrical Observations taken at the Meteorological Office, Chowringhee, from 19th to 25th January 1890.

MONTH.	Date.	Pressure at 10 A.M. corrected and reduced to 32° Fahr.	TEMPERATURE.					HYGROMETRY.				Rainfall past 24 hours.
			Daily mean.	Maximum.	Range.	Minimum.	Dry bulb at 10 A.M.	Wet bulb at 10 A.M.	Vapour tension at 10 A.M.	Dew point at 10 A.M.	Humidity at 10 A.M.	
		Inches.	°	°	°	°	°	°	Inches.	°	%	Inches.
Jan. 1890 ...	19th ...	29.903	71.5	82.9	22.8	60.1	74.6	60.6	.658	66.8	77	...
" "	20th ...	29.926	72.3	79.9	15.2	64.7	72.1	68.6	.653	66.6	83	...
" "	21st ...	29.84	69.1	77.9	17.6	60.3	70.6	66.1	.582	63.2	78	...
" "	22nd ...	29.92	68.9	75.9	29.0	58.9	71.0	65.0	.539	61.1	71	...
" "	23rd ...	29.95	70.2	81.4	22.5	58.9	73.6	65.6	.525	60.3	63	...
" "	24th ...	29.78	73.5	82.9	18.8	64.1	76.4	70.6	.672	67.4	74	...
" "	25th ...	29.16	70.3	76.9	13.2	63.7	68.4	65.0	.575	62.8	83	1.02

The mean 10 A.M. pressure of the seven days 29.949

The mean temperature of the seven days 70.8

The extreme variation of temperature 24.0

The maximum temperature 82.9

The mean 10 A.M. relative humidity of the seven days 76%

The total fall of rain from 19th to 25th January 1890 1.02

The daily mean temperatures are the crude means of maximum and minimum temperatures.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, INDIA;
The 27th January 1890.

Results of the Meteorological Observations taken at the Alipore Observatory from
19th to 25th January 1890.

Month.	Date.	Maximum in sun.	Number of hours of bright sunshine.	Mean pressure barometer at 32° Fahr.	TEMPERATURE.				HYGROMETRY.				WIND.		Rain.	WEATHER.
					Mean.	Maximum.	Range.	Minimum.	Mean wet bulb.	Vapour tension.	Dew point.	Humidity.	Prevailing direction.	Miles recorded.		
1890.		°		Inches.	°	°	°	°	°	Inches	°	%			Inches.	
Jan.	19th	130.8	9.4	29.897	69.7	81.4	23.1	58.3	65.3	0.571	62.7	80	SW by S, SW and S by E.	96	Nil	Clear, Δ , \equiv .
"	20th	131.0	6.5	29.854	70.9	79.0	14.7	64.3	66.5	0.592	63.7	79	S by E, NNW and variable.	89	"	Chiefly cloudy, o.
"	21st	132.4	8.8	29.909	68.4	76.4	16.1	60.3	63.7	0.529	60.6	77	NE, NNW and calm	62	"	Chiefly clear, Δ .
"	22nd	129.4	8.9	29.904	67.4	77.8	20.0	57.8	62.3	0.498	58.8	76	WNW and calm ...	35	"	Chiefly clear, Δ , \equiv .
"	23rd	134.1	9.5	29.862	68.5	79.2	21.9	57.3	63.3	0.517	59.9	76	SSW, SW and calm	59	"	Clear, Δ , \equiv .
"	24th	133.3	9.3	29.803	72.6	81.7	18.0	63.7	68.6	0.651	66.4	81	SSE, SSW and variable.	161	"	Chiefly clear, Δ .
"	25th	132.7	8.1	29.860	66.8	75.7	12.9	62.8	63.4	0.539	61.0	82	NNW and calm ...	79	0.77	Chiefly cloudy, o, p.

The mean pressure of the seven days ... 29.870
The average pressure of the corresponding period for 24 years, S.-G.'s Office ... 30.005

The total number of hours of bright sunshine ... 60.5
The maximum possible number of hours of sunshine ... 76.6

The mean temperature of the seven days ... 69.2
The average temperature of the corresponding period for 24 years, S.-G.'s Office ... 68.4
The extreme variation of temperature ... 24.4
The maximum temperature ... 81.7

The highest velocity of the wind in one hour ... 14
The highest pressure of wind on one square foot ... Not measurable.

The mean relative humidity ... 79
The average relative humidity of the corresponding period for 24 years, S.-G.'s Office ... 70

The total fall of rain from 19th to 25th January 1890 ... 0.77
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.05
The total fall from 1st to 25th January 1890 ... 0.77
The average fall of the corresponding period for 24 years, S.-G.'s Office ... 0.19

The mean pressure, temperature, &c., are deduced from the traces of the Barograph and Thermograph and from observations made at 6h, 10h, 16h, and 22h.

The maximum and minimum temperatures are obtained from self-registering thermometers. All the thermometers are verified, and the readings have been corrected to a standard constructed and verified at the Kew Observatory. They are exposed under a thatched shed open at the sides, and are suspended four feet above the ground.

The barometer readings are corrected approximately to those of the standard, Newman's No. 86, formerly at the Surveyor-General's Office.

The hygrometric elements are obtained from Tables III, IV, and V of the official tables computed in the Meteorological Office, and based on Regnault's modifications of August's formula.

The directions and the movement of the wind are taken from the trace of a Beckley's anemograph.

The mouth of the rain-gauge is one foot above the ground.

o overcast, p passing temporary showers, Δ dew; \equiv fog.

C. LITTLE,

For Meteorological Reporter to the Govt. of India.

METEOROLOGICAL OFFICE, GOVT. OF INDIA;
Calcutta, the 27th January 1890.

MEMORANDUM.

BIRTHS and deaths were registered in the principal Municipalities in Bengal during the week ending 11th January 1890, at the rates, respectively, of 22·8 and 25·9 per 1,000 of population, against 25·8 and 23·7 per 1,000 during the preceding week ending 4th January, indicating a retrogression in the registration of births and an increase in that of deaths.

2. The highest proportions of births and deaths were returned from the following Municipalities :—

<i>Births.</i>				<i>Deaths.</i>			
			Ratio per mille.				Ratio per mille.
Chupra	...	...	42·3	Poori	...	...	58·7
Bali	...	...	42·1	Arrah	...	...	58·6
Arrah	...	...	38·3	Jessore	...	...	55·1
Rampore Beaulcah	...	...	36·8	Darjiling	...	...	44·5
Midnapore	...	...	31·0	Chittagong	...	...	42·3
Comillah	...	...	30·8	Ranaghat	...	...	41·9
Durbhanga	...	...	30·7	Burdwan	...	...	39·7
Jessore	...	...	30·6	Comillah	...	...	38·5
				Hughli and Chinsurah	...	...	36·1
				Dacca	...	...	33·7

3. The specific diseases, as noted below, proved fatal at the rates exhibited opposite them :—

				Ratio per mille during the weeks ending—	
				11th January 1890.	4th January 1890.
Cholera	...	...	...	2·4	2·2
Small-pox	...	...	...	4	5
Fever	...	...	...	11·5	9·8
Bowel-complaints	...	...	...	3·1	3·6
Injury	...	...	...	4	2
Other causes	...	...	...	8·1	7·3

indicating chiefly, that the mortality from fever was higher during the week under notice than during the preceding week ending 4th January.

4. Of the diseases mentioned above, small-pox was noticeably severe in Poori town, there being seven deaths (mortality 14·7 per 1,000 of population), and bowel-complaints prevailed in Hughli and Chinsurah Municipality (mortality 14·7 per 1,000 population), while cholera, fever and the maladies coming under the head of "Other causes" were reported to have been notably fatal in the following Municipalities :—

<i>Cholera.</i>			<i>Fever.</i>			<i>Other causes.</i>		
		Ratio per mille.			Ratio per mille.			Ratio per mille.
Jessore	...	36·7	Arrah	...	49·0	Midnapore	...	23·2
Chittagong	...	9·4	Darjiling	...	44·5	Poori	...	18·9
Burdwan	...	9·2	Purneah	...	24·2	Dacca	...	14·9
Howrah	...	6·3	Rampore Beaulcah	...	23·6	Durbhanga	...	12·6
Dacca	...	3·9	Chittagong	...	21·1	Bhagulpore	...	11·8
						Gya	...	10·2
						Chupra	...	10·1

5. The death-rates under the heads of *Sex*, *Class* and *Age* stood as follows :—

<i>According to Sex.</i>			<i>According to Class.</i>			<i>According to Age.</i>		
		Ratio per mille.			Ratio per mille.			Ratio per mille.
Males	...	30·4	Christians	...	14·9	Under 1 year	...	172·1
Females	...	21·2	Hindus	...	25·8	1 and under 5 years	...	25·2
Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population	...	143	Mahomedans	...	26·5	5 " 10 "	...	13·7
			Budhists	...	25·7	10 " 15 "	...	9·7
			Other classes	...	76·8	15 " 20 "	...	14·1
						20 " 30 "	...	16·0
						30 " 40 "	...	23·7
						40 " 50 "	...	22·4
						50 " 60 "	...	32·9
						60 years and upwards	...	66·4

W. H. GREGG, *Dip. Publ. Health, Camb.,*
Sanitary Commissioner for Bengal.

The 27th January 1890.

Statement showing the Results of the Registration of Births and Deaths in the principal Municipalities in Bengal during the week ending 13th January 1890.

DISTRICTS.		NAMES OF MUNICIPALITIES.		POPULATION.			BIRTHS.			MORTALITY ACCORDING TO—										Sex.		Ratio of male deaths to every 100 female deaths, calculated on the proportion such mortality bears to the total male and female population.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				Total.		NUMBER OF—		RATIO PER 1,000 OF POPULATION PER ANNUM.		Ratio of male births to every 100 female births.		DEATHS FROM—						RATIO PER 1,000 OF POPULATION PER ANNUM.						DEATHS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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												Males.		Females.		Total.		Males.		Females.			Total.		Males.		Females.		Males.		Females.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

DISTRICTS. NAMES OF MUNICIPALITIES.	13				14				15				16			
	13				14				15				16			
	13				14				15				16			
	13				14				15				16			
MORTALITY ACCORDING TO—	Class.				Age.				Ratio per 1,000 of Population per annum.				Ratio per 1,000 of Population per annum.			
	Deaths among—				Deaths.				Ratio per 1,000 of Population per annum.				Ratio per 1,000 of Population per annum.			
	Christians.	Hindus.	Mahomedans.	Buddhists.	Other classes.	Under 1 year.	1 and under 5 years.	5 and under 10 years.	10 and under 15 years.	15 and under 20 years.	20 and under 30 years.	30 and under 40 years.	40 and under 50 years.	50 and under 60 years.	60 years and up.	Ratio per 1,000 of Population per annum.
Burdwan
Midnapore
Hutch
Serampore
Howrah
Nuddea
Jessore
Rajshahye
Darjiling
Dacca
Chittagong
Tipperah
Palna
Gya
Shahabad
Moulfepore
Durbhanga
Saran
Bhagalpore
Monghyr
Purneah
Poori
TOTAL	376	159	1	1	1	1	1	1	1	1	1	1	1	1	1	...

OFFICE OF SANITARY COMMISSIONER FOR BENGAL.

The 27th January 1890.

W. H. GREGG, Dip. Publ. Health, Camb.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.

NUDDEA RIVERS.

Statement showing quantities of Goods carried during the month of November 1889.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.	Rupees.	Tons.	Rupees.	
21	1. Grain ...	389	4,217	4,606	2,75,726	4,606	2,75,726	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
01	3. Oilseeds ...	16	1,301	1,317	1,75,965	1,317	1,75,965	
07	4. Salt ...	3,898	.....	3,898	3,33,993	3,898	3,33,993	
...	5. Piece-goods ...	.....	.....	.....	.....	.....	.....
14	6. Metal ...	50	19	69	24,830	69	24,830	
25	7. Building materials	151	36	187	1,764	187	1,764	
39	8. Miscellaneous ...	2,210	7,063	9,273	13,74,310	9,273	13,74,310	
72	9. Fuel ...	734	101	835	10,425	835	10,425	
2 rafts	10. Timber ...	852 c. ft.	520 c. ft.	1,372 c. ft.	2,838	1,372 c. ft.	2,838	
6 "	11. Bamboos ...	93 "	1,600 "	1,693 "	169	1,693 "	169	
949 & 8 rafts.	12. Total ...	{ 7,448 & 945 c. ft.	{ 12,737 & 2,120 c. ft.	{ 20,185 & 3,065 c. ft.	{ 22,00,020	{ 20,185 & 3,065 c. ft.	{ 22,00,020	
228 & 14 rafts.	13. Total of same month last year	{ 5,689 & 166 c. ft.	{ 18,185 & 3,698 c. ft.	{ 23,874 & 3,864 c. ft.	{ 28,11,085	{ 23,874 & 3,864 c. ft.	{ 28,11,085	
		Up.	Down.	Total.				Rs. A. P.
4.	Total number of boats plying cargo No.	876	1,073	1,949	Total tollage of month—24+25+26 ...			12,238 1 0
14a.	Ditto empty boats, steamers, &c. No.	456	111	567	Total tollage of same month last year ...			13,321 1 6
15.	Total number of boats plying passenger No.	995	1,622	2,617	<i>Memorandum of Tollage.</i>			
15a.	Ditto empty boats "	61	24	85				
16.	Total registered tonnage, cargo Tons	17,726	26,817	44,543	1. Balance not recovered on the 1st of the month ...			Rs. A. P. 480 2 6
17.	Total registered tonnage, passenger Tons	447	335	782	2. Tollage per month ...			12,238 1 0
18.	Ton-mileage	.....	.....	.....	3. Total ...			12,718 3 6
19.	Estimated value of cargo Rs.	8,35,223	13,61,790	21,97,013	4. Amount paid into Treasury during the month ...			12,349 4 6
20.	Number of passengers No.	20,797	13,884	34,681	5. Balance due at the end of the month ...			368 15 0
21.	Rafts, bamboos O. ft.	93	1,600	1,693				
22.	Do., bullahs "	852	520	1,372				
23.	Estimated value of rafts Rs.	1,287	1,720	3,007				
24.	Tollage on boats "	4,809-6-6	7,411-0-6	12,220-7-0				
25.	Compounded tollage on boats Rs.	.....	.....	.....	
26.	Tollage on rafts "	6-0-0	11-10-0	17-10-0				
27.	Total tollage on boats per ton-mile*	.....	.....	.....	
28.	Ditto on rafts per 100 cubic feet Rs.	.....	.....	0-9-3				

* Boats in these rivers do not pay per mile.

Abstract for the month of November 1889 as compared with the corresponding month of the previous year.

	1889-90.		1888-89.	
	During the month.	To end of the month.	During the month.	To end of the month.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tollage ...	12,238 1 0	1,46,101 3 9	13,321 1 6	1,54,152 5 2

CALCUTTA,
The 28th January 1890.G. A. G. SHAW,
Under-Secy. to the Govt. of Bengal.

PUBLIC WORKS DEPARTMENT, IRRIGATION BRANCH, BENGAL.

SOUTH-WESTERN CIRCLE.

ORISSA COAST CANAL SYSTEM.

LENGTH OF CANAL OPEN, 97½ MILES.

Statement showing quantities of Goods carried during the month of November 1889.

Number of boats or rafts.	DESCRIPTION.	TOTAL GOVERNMENT AND PRIVATE.				PRIVATE.		REMARKS.
		Quantity—Tons.			Value.	Quantity.	Value.	
		Up.	Down.	Total.		Tons.	Rupees.	
78	1. Grain ...	611	215	826	42,487	826	42,487	
...	2. Cotton ...	.....	.....	.....	.....	.....	.....
7	3. Oilseeds ...	35	.....	35	3,040	35	3,040	
18	4. Salt ...	.....	140	140	16,915	140	16,915	
5	5. Piece-goods ...	.....	43	43	8,100	43	8,100	
2	6. Metal ...	.....	3	3	575	3	575	
14	7. Buildingmaterials ...	32	22	54	543	34	383	
516	8. Miscellaneous ...	466	322	788	1,01,805	788	1,01,775	
8	9. Fuel ...	.....	81	81	606	81	606	
16 rafts	10. Timber ...	1,977 c. ft.	.....	1,977 c. ft.	1,335	1,977 c. ft.	1,235	
32 "	11. Bamboos ...	1,300 "	.....	1,300 "	141	1,300 "	141	
648 & 48 rafts.	12. Total ...	{ 1,144 & 3,277 c. ft.	826	{ 1,970 & 3,277 c. ft.	{ 1,75,547	{ 1,950 & 3,277 c. ft.	{ 1,75,357	
836 & 46 rafts.	13. Total of same month last year	{ 2,053 & 2,927 c. ft.	463 & 237 c. ft.	{ 2,516 & 3,164 c. ft.	{ 1,54,036	{ 2,516 & 3,164 c. ft.	{ 1,54,036	
14. Total number of boats plying cargo	No.	340	308	648	Total tollage of month—		Rs. A. P.	
15. Total number of boats plying passenger	No.	78	78	156	24+25+26 ...		4,208 7 9	
16. Total registered tonnage, cargo	Tons	2,698	2,364	5,062	Total tollage of same month last year ...		3,647 14 0	
17. Total registered tonnage, passenger	Tons	795	787	1,582	Memorandum of Tollage.			
18. Ton-mileage	...	116,000	119,161	235,161				
19. Estimated value of cargo	Rs.	79,528	94,543	1,74,071				
20. Number of passengers	No.	1,485	1,361	3,346				
21. Rafts, bamboos	C. ft.	1,300	.....	1,300	1. Balance not recovered on the 1st of the month		4,372 13 0	
22. Do., bullahs	"	1,977	.....	1,977	2. Tollage per month ...		4,208 7 9	
23. Estimated value of rafts	Rs.	1,476	.....	1,476	3. Total ...		8,581 4 9	
24. Tollage on boats	"	2,086-2-3	2,092-1-6	4,128-3-9	4. Amount paid into Treasury during the month		4,178 10 0	
25. Compounded tollage on boats	Rs.	.....	4-8-0	4-8-0	5. Balance due at the end of the month		4,402 10 0	
26. Tollage on rafts	"	75-12-0	.....	75-12-0				
27. Total tollage on boats per ton-mile	Rs.	.....	.....	0-0-3-3				
28. Ditto on rafts per 100 cubic feet	Rs.	.....	.....	2-4-11				

Abstract for the month of November 1889 as compared with the corresponding month of the previous year.

	1889-90.		1888-89.	
	During the month.		During the month.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Tollage ...	4,208 7 9	37,829 0 6	3,647 14 6	42,143 4 0

CALCUTTA,
The 28th January 1890.G. A. G. SHAW,
Under-Secy. to the Govt. of Bengal.

CIRCULAR AND EASTERN CANALS.

*Approximate Return of Traffic for the week ending Saturday, the 25th January 1890,
as compared with the corresponding week of the previous year.*

NATURE OF CARGO.	WEEK ENDING SATURDAY, THE 25TH JANUARY 1890.			WEEK ENDING SATURDAY, THE 25TH JANUARY 1889.		
	Number of boats.	Weight of cargo.	Tollage.	Number of boats.	Weight of cargo.	Tollage.
	No.	Mds.	Rs.	No.	Mds.	Rs.
Rice and paddy	1,774	3,14,270	5,443	1,803	5,06,175	8,984
Jute	188	1,06,583	2,086	142	97,075	1,735
Firewood	72	47,300	720	125	61,400	878
Other articles	937	2,09,305	3,186	1,244	2,53,510	3,715
Total	2,971	6,77,458	11,385	3,314	9,18,160	15,312

Nalhati State Railway.

Statement showing Increases and Decreases in tonnage of Staples carried over the Nalhati State Railway during the month of December 1889, as compared with the same month of the previous year.

STAPLES.	1888.		1889.		Total.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1888.	1889.		
Coal	Tons. 458	Tons. 507	Tons. 507	Tons. 507	Tons. 458	Tons. 507	Tons. 145	Tons. 19
Cotton, raw	25	6	6	6	25	6	19	19
Cotton twist and yarn—								
1.—European	1	1	1	1	2	2	2	2
Cotton piece-goods—								
1.—European	47	1	55	48	48	55	7	7
Dyes and tans—								
1.—Indigo	2	5	2	5	2	5	3	3
Grains—								
1.—Wheat	1	1	1	1	1	1	1	1
2.—Rice	746	63	1,071	747	747	1,133	386	386
4.—Others	21	57	29	18	18	78	47	31
Hides and skins—								
1.—Hides of cattle—								
a.—Dressed	7	7	7	7	7	7	7	7
b.—Undressed	1	3	1	3	1	3	2	2
2.—Skins of sheep, goats and small animal—								
a.—Dressed	1	1	1	1	1	1	1	1
Jute—								
1.—Raw	37	138	37	138	37	138	101	101
2.—Gunny bags and cloths	20	35	22	38	22	38	16	16
Leather, manufactured	8	5	8	5	8	5	3	3
Metals—								
2.—Iron	29	10	29	10	29	10	19	19
4.—Others	8	7	7	2	15	9	6	6
Oils—								
1.—Castor	1	1	1	1	1	1	1	1
2.—Kerosine	2	6	2	6	2	6	4	4
3.—Others	13	8	13	8	13	8	5	5
Oilseeds—								
1.—Linseed	16	16	16	16	16	16	16	16
2.—Mustard and rape	99	29	99	29	99	29	70	70
3.—Til or gingelly	3	7	3	7	3	7	4	4
6.—Others	3	3	3	3	3	3	3	3
Provisions—								
1.—Ghee	7	4	7	4	7	4	3	3
2.—Dried fruits and nuts	68	63	68	63	68	63	5	5
3.—Others	8	29	29	33	29	33	4	4
Railway plant and rolling-stock	38	27	38	27	38	27	11	11
Salt	2	7	2	7	2	7	5	5
Silk, raw—								
2.—Indian	2	29	2	29	2	29	27	27
Silk piece-goods—								
2.—Indian	6	9	6	9	6	9	3	3
Stone and lime	3	9	3	9	3	9	6	6
Sugar—								
1.—Drained	19	18	19	18	19	18	1	1
2.—Undrained	4	85	4	85	4	85	81	81
Tobacco	6	1	6	1	6	1	5	5
Timber	1	3	1	3	1	3	2	2
All other articles of merchandise	56	45	74	72	74	117	43	43
Total	1,141	937	1,082	1,328	2,078	2,410	332	332

INCREASE.

Cotton piece-goods—
(1) European ... 7
This increase is due to steamer service between Jeaganj and Calcutta being stopped for want of sufficient water.
Grains—
(2) Rice ... 386
This increase is due to greater export owing to high market rate at Calcutta.
Jute—
(1) Raw ... 101
This increase is due to greater export owing to high rate in some parts of Hooghly district.

	Tons.
(2) Gunny-bags and cloths	16
This increase is due to the import of gunny-bags for export of rice.	
Oilseeds—	
(3) Til or gingelly	7
This increase is due to there being no traffic under this head last year.	
Silk, raw—	
(2) Indian	23
This increase is due to import of tussur silk cocoons from Raniganj district.	
Sugar—	
(2) Undrained	81
This increase is due to greater import owing to high rate at Azimganj.	
DECREASE.	
Coal	145
This decrease is due to less import owing to previous stock not being exhausted.	
Cotton, raw	19
This decrease is due to previous stock not being exhausted.	
Grains—	
(4) Others	31
This decrease is due to failure of kollyee crops this year.	
Hides and skins—	
(1) Hides of cattle—	
(a) Dressed	7
This decrease is due to non-carriage of such articles this year.	
Metals—	
(2) Iron	19
This decrease is due to less demand this year.	
Oilseeds—	
(1) Linseed	16
This decrease is due to non-export this year owing to high rate at Azimganj.	
(2) Mustard and rape	70
This decrease is due to less import owing to local dull market rate.	
Salt	11
The decrease is due to import by boat in previous months.	
Tobacco	6
The decrease is due to non-carriage this year.	

R. G. MOOKERJEE,
Manager, Nalhati State Railway.

Weekly Return of Traffic Receipts on Indian Railways.

EAST INDIAN RAILWAY.

Approximate Return of Traffic for week ended 18th January 1890, on 1,525½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	*275,250	*3,16,310 15 0	23,96,401 0	5,73,153 15 0	19,790 8 0	9,09,440 1 0	65,782½	90,544½	156,327
Or per mile of railway ...	...	207 7 8	...	375 11 3	12 13 7	596 2 6	...	...	...
For previous 5 weeks of half-year ...	261,717	4,16,729 7 0	42,60,655 20	9,00,460 2 0	30,683 8 0	14,07,873 1 0	100,533½	146,312½	246,846
Total for 5 weeks ...	626,976	7,33,340 3 0	66,47,606 20	15,33,594 15 0	50,474 0 0	23,17,313 2 0	166,815½	236,857	403,672½
COMPARISON.									
Total for corresponding week of previous year ...	347,247½	2,92,552 14 4	27,32,496 0	5,98,422 9 8	14,567 15 1	9,05,513 7 1	66,271	93,942	160,213
Per mile of railway corresponding week of previous year ...	...	191 11 10	...	392 4 6	9 9 0	593 9 4	...	...	...
Total to corresponding date of previous year ...	632,194½	7,53,577 10 10	76,29,392 20	16,92,578 15 3	41,462 4 6	24,87,868 12 7	177,513	273,536	451,049

* The increase in coaching traffic is principally due to the "Magh Mela" held at Allahabad.

Approximate Statement of gross receipts of the East Indian Railway, prepared in accordance with Public Works Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 18TH JANUARY 1889.			RECEIPTS FOR WEEK ENDING 18TH JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 15TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 15TH JANUARY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
1,328½	9,05,513	594	1,525½	9,09,440	593	1,525½	3,59,27,594	547	1,526½	3,48,78,580	544	...	140,504

PATNA-GYA STATE RAILWAY.

Approximate Return of Traffic for week ended 18th January 1890, on 57½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	12,039	6,389 10 0	32,767 0	2,207 5 0	52 0 0	8,648 15 0	1,718	1,242	2,960
Or per mile of railway ...	210½	111 11 4	573 0	38 9 5	0 14 6	151 3 3	.....	.....	.....
For previous 2 weeks of half-year ...	21,710	11,145 9 0	53,625 30	3,661 13 0	72 13 0	14,880 3 0	2,746	1,616	3,762
Total for 3 weeks ...	33,749	17,535 3 0	86,392 30	5,869 2 0	124 13 0	23,529 2 0	4,464	2,258	6,722
COMPARISON.									
Total for corresponding week of previous year ...	11,937	6,328 14 10	25,557 20	1,882 5 0	33 0 0	8,244 3 10	1,936	458	2,394
Per mile of railway corresponding week of previous year ...	209	110 10 4	447 0	32 14 6	0 9 3	144 2 1	.....	.....	.....
Total to corresponding date of previous year ...	34,809	18,314 1 10	70,202 0	4,819 8 0	102 2 9	23,235 12 7	5,162	1,536	6,498

Approximate Statement of gross receipts of the Patna-Gya State Railway, prepared in accordance with Public Works
Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 19TH JANUARY 1889.			RECEIPTS FOR WEEK ENDING 18TH JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 19TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH JANUARY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
57½	8,244	144	57½	8,649	151	57½	3,91,994	163	57½	4,05,900	169	13,965	.....

TARKESSUR BRANCH RAILWAY.

Approximate Return of Traffic for week ended 18th January 1890, on 22½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	19,578	4,828 12 0	10,374 10	375 1 0	8 4 0	5,212 1 0	962	60	968
Or per mile of railway ...	.....	217 0 4	.....	16 13 9	0 5 11	234 4 0	.....	.....	.....
For previous 2 weeks of half-year ...	28,832	7,334 11 0	17,311 0	722 3 0	10 8 0	8,067 6 0	1,419	99	1,512
Total for 3 weeks ...	48,410	12,163 7 0	27,685 10	1,097 4 0	18 12 0	13,279 7 0	2,321	163	2,486
COMPARISON.									
Total for corresponding week of previous year ...	19,791	4,887 13 9	11,216 0	363 9 0	3 1 0	5,254 8 6	896	72	968
Per mile of railway corresponding week of previous year ...	.....	219 10 10	.....	16 5 5	0 2 3	236 2 6	.....	.....	.....
Total to corresponding date of previous year ...	50,994	12,533 5 0	26,302 20	902 8 0	14 3 9	13,510 0 9	2,434	184	2,618

Approximate Statement of gross receipts of the Tarkessur Branch Railway, prepared in accordance with Public Works
Department Circular No. XXI, Railway, dated 23rd July 1883.

RECEIPTS FOR WEEK ENDING 19TH JANUARY 1889.			RECEIPTS FOR WEEK ENDING 18TH JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 19TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH JANUARY 1890.			Total increase in 1890.	Total decrease in 1890.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
22½	6,255	256	22½	5,212	234	22½	2,20,393	236	22½	2,17,276	232	.....	3,118

EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACCA, K. AND D., AND ASSAM-BEHAR SECTIONS.)

Approximate Return of Traffic for first 11 days of January 1890, on 747 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 11 days ...	270,740	1,18,230 0 0	9,71,200 0	2,36,940 0 0	26,810 0 0	3,81,980 0 0	56,369	58,769	95,138
Or per mile of railway ...	181	79 0 0	650 0	155 0 0	*5 0 0	242 0 0	...	...	...
For previous weeks of half-year ...	...	...	...	...	...	...	...	...	...
Total for 2 weeks ...	270,740	1,18,230 0 0	9,71,200 0	2,36,940 0 0	26,810 0 0	3,81,980 0 0	56,369	58,769	95,138
COMPARISON.									
Total for corresponding 12 days of previous year ...	257,893	1,09,777 0 0	8,22,403 0	1,98,395 0 0	26,653 0 0	3,34,225 0 0	57,126	55,130	92,256
Per mile of railway corresponding period of previous year ...	192	82 0 0	611 0	147 0 0	*4 0 0	233 0 0	...	...	...
Total to corresponding date of previous year ...	257,893	1,09,777 0 0	8,22,403 0	1,98,395 0 0	26,653 0 0	3,34,225 0 0	57,126	55,130	92,256

* Excluding steamer earnings.

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Eastern Bengal State Railway.

RECEIPTS FOR FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
673	3,34,225	248	747	3,81,980	256	673	85,76,614	311	723	*90,20,143	304	4,43,529	...

* Audited up to week ending 23rd November 1889.

BENGAL CENTRAL RAILWAY.

Approximate Return of Traffic for first 11 days of January 1890, on 125 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 11 days ...	48,459	16,840 0 0	67,350 0	4,330 0 0	130 0 0	21,300 0 0	5,579	3,044	8,623
Or per mile of railway ...	194	67 0 0	269 0	17 0 0	1 0 0	83 0 0	...	...	...
For previous weeks of half-year ...	...	...	...	...	...	...	...	...	...
Total for 2 weeks ...	48,459	16,840 0 0	67,350 0	4,330 0 0	130 0 0	21,300 0 0	5,579	3,044	8,623
COMPARISON.									
Total for corresponding 12 days of previous year ...	46,217	15,433 0 0	72,770 0	3,700 0 0	2,450 0 0	21,583 0 0	6,425	3,320	9,745
Per mile of railway corresponding period of previous year ...	185	61 0 0	305 0	15 0 0	10 0 0	86 0 0	...	...	...
Total to corresponding date of previous year ...	46,217	15,433 0 0	72,770 0	3,700 0 0	2,450 0 0	21,583 0 0	6,425	3,320	9,745

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Bengal Central Railway.

RECEIPTS FOR FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
125	21,583	86	125	21,500	85	125	5,67,728	111	125	*5,93,777	116	26,639	...

* Audited up to week ending 23rd November 1889.

DACCRA STATE RAILWAY.

Approximate Return of Traffic for first 11 days of January 1890, on 86 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for first 11 days ...	29,270	11,290 0 0	57,640 0	5,740 0 0	500 0 0	17,530 0 0	4,038	1,058	5,124
Or per mile of railway ...	170	66 0 0	335 0	33 0 0	3 0 0	102 0 0	.....	.....	.....
For previous weeks of half-year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total for 2 weeks ...	29,270	11,290 0 0	57,640 0	5,740 0 0	500 0 0	17,530 0 0	4,038	1,058	5,124
COMPARISON.									
Total for corresponding 12 days of previous year ...	27,513	8,156 0 0	11,913 0	1,315 0 0	276 0 0	9,747 0 0	4,284	1,070	5,354
Per mile of railway corresponding period of previous year ...	159	47 0 0	69 0	8 0 0	2 0 0	57 0 0	.....	.....	.....
Total to corresponding date of previous year ...	27,513	8,156 0 0	11,913 0	1,315 0 0	276 0 0	9,747 0 0	4,284	1,070	5,354

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Dacca State Railway.

RECEIPTS FOR FIRST 12 DAYS OF JANUARY 1889.			RECEIPTS FOR FIRST 11 DAYS OF JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 12TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 11TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
86	9,747	57	86	17,530	102	86	2,53,221	66	86	*3,00,764	85	67,543	.....

* Audited up to week ending 23rd November 1889.

NALHATI STATE RAILWAY.

Approximate Return of Traffic for the week ending 18th January 1890, on 27½ miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	3,168	1,050 0 0	18,181 0	1,105 0 0	13 0 0	2,168 0 0	509	254	763
Or per mile of railway ...	116	39 0 0	667 0	41 0 0	.....	80 0 0	.....	.....	.....
For previous one week of half-year ...	4,553	1,642 0 0	29,324 0	1,684 0 0	31 0 0	5,357 0 0	800	399	1,199
Total for 2 weeks ...	7,719	2,692 0 0	47,505 0	2,789 0 0	44 0 0	5,525 0 0	1,309	653	1,962
COMPARISON.									
Total for corresponding week of previous year ...	3,500	1,273 0 0	16,657 0	839 0 0	17 0 0	2,129 0 0	509	605	1,114
Per mile of railway corresponding week of previous year ...	125	46 0 0	613 0	31 0 0	1 0 0	78 0 0	.....	.....	.....
Total to corresponding date of previous year ...	8,553	3,186 0 0	41,388 0	2,105 0 0	59 0 0	5,339 0 0	1,381	1,367	2,748

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Nalhati State Railway.

RECEIPTS FOR WEEK ENDING 19TH JANUARY 1889.			RECEIPTS FOR WEEK ENDING 18TH JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 19TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Rs.	Rs.
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
27½	2,129	78	27½	2,168	80	27½	80,571	74	27½	80,243	74	.....	328

TIRHOOT STATE RAILWAY.

Approximate Return of Traffic for the week ending 18th January 1890, on 273 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. S.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week ...	45,931	24,287 0 0	2,24,434 0	23,571 0 0	5,124 0 0	52,982 0 0	6,623	6,762	13,385
Or per mile of railway ...	168	89 0 0	822 0	86 0 0	8 0 0	178 0 0*	.....	.....	.....
For previous one week of half-year ...	68,548	28,612 0 0	3,42,046 0	39,248 0 0	7,435 0 0	75,295 0 0	8,427	13,608	22,035
Total for 2 weeks ...	114,479	52,899 0 0	5,66,480 0	62,819 0 0	12,559 0 0	1,28,277 0 0	15,050	20,430	35,480
COMPARISON.									
Total for corresponding period of previous year ...	40,547	14,795 0 0	1,37,990 0	12,816 0 0	4,133 0 0	31,744 0 0	5,257	6,631	11,888
Per mile of railway corresponding week of previous year ...	149	54 0 0	505 0	47 0 0	6 0 0	107 0 0*	.....	.....	.....
Total to corresponding date of previous year ...	103,654	37,265 0 0	3,68,760 0	32,930 0 0	8,091 0 0	78,886 0 0	14,452	14,711	29,163

* Steam-boat earnings excluded in calculating "Total earnings per mile of Railway."

FINANCIAL YEAR.

Approximate Statement of gross receipts of the Tirhoot State Railway.

RECEIPTS FOR WEEK ENDING 19TH JANUARY 1889.			RECEIPTS FOR WEEK ENDING 18TH JANUARY 1890.			TOTAL RECEIPTS FROM 1ST APRIL 1888 TO 19TH JANUARY 1889.			TOTAL RECEIPTS FROM 1ST APRIL 1889 TO 18TH JANUARY 1890.			Total increase in 1889-90.	Total decrease in 1889-90.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked per week.	Mean mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
273	31,744	116	273	52,982	194	264*29	13,28,389	126	273	16,11,709	147	2,83,320	.....



SUPPLEMENT TO The Calcutta Gazette.

WEDNESDAY, FEBRUARY 5, 1890.

OFFICIAL PAPERS.

Non-Subscribers to the GAZETTE may receive the SUPPLEMENT separately on payment of Six Rupees per annum if delivered in Calcutta, or Twelve Rupees if sent by Post.

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Abstract of the Proceedings of the Council of the Lieutenant-Governor of Bengal, assembled for the purpose of making Laws and Regulations under the provisions of the Act of Parliament 24 and 25 Vic., Cap. 67.

THE Council met at the Council Chamber on Saturday, the 1st February, 1890.

Present:

The HON'BLE SIR STEUART COLVIN BAYLEY, K.C.S.I., C.I.E., Lieutenant-Governor of Bengal, *presiding*.
 The HON'BLE SIR CHARLES PAUL, K.C.I.E., *Advocate-General*.
 The HON'BLE F. B. PEACOCK.
 The HON'BLE P. NOLAN.
 The HON'BLE T. T. ALLEN.
 The HON'BLE SIR HENRY HARRISON, Kt.
 The HON'BLE SIR ALFRED CROFT, K.C.I.E.
 The HON'BLE DR. MAHENDRA LAL SIRCAR, C.I.E.
 The HON'BLE C. H. MOORE.
 The HON'BLE H. PRATT.
 The HON'BLE SHAHZADA MAHOMMED FURROKH SHAH.
 The HON'BLE DR. RASH BEHARY GHOSE.
 The HON'BLE RAJA RAMESHWAR SING BAHADUR.

BENGAL VACCINATION BILL.

THE Hon'ble SIR HENRY HARRISON moved that the Report of the Select Committee on the Bill to amend the Bengal Vaccination Act, 1880, and Act II, 1887, be taken into consideration in order to the settlement of the clauses of the Bill.

The Motion was put and agreed to.

The Hon'ble SIR HENRY HARRISON also moved that the clauses of the Bill be considered for settlement in the form recommended by the Select Committee.

He said:—"I have explained the object of the Bill at a previous meeting, and it is therefore not necessary for me to say anything further on this occasion."

The Motion was put and agreed to.

The Hon'ble SIR HENRY HARRISON also moved that the Bill, as amended, be passed.

The Motion was put and agreed to.

CALCUTTA PORT BILL.

HIS Honour the PRESIDENT said:—"Before adjourning the Council, I think I owe a few words to it in explanation of the omission from the list of business of the Ports Bill which had been originally entered in the list of business for discussion to-day.

"You will recollect that a fortnight ago we adjourned without considering it, in order that the Chamber of Commerce might have an opportunity of submitting a memorial, which we understood was in the course of preparation for our consideration.

"On Wednesday last, my friend, the Hon'ble Mr. Moore, told me he was afraid he would have to ask for another postponement in consequence of the absence of the Chamber's legal adviser. I asked him to see if the postponement could not be avoided, but I heard from him yesterday that he had been unable to get the memorial considered in time for us to take it up to-day, and he again asked for an adjournment. Upon that I took it on myself to exclude the motion from the list of business for to-day.

"Since then (yesterday) I received an application, which I think is in your hands, from the Secretary of the British Indian Association, which requests us that we will postpone for a fortnight the consideration of the Select Committee's report in view of the Committee laying before the Council some further representation regarding section 85.

"I may add that the Secretary says 'that the question of title in riverbanks having been treated by the Select Committee as one of general application, my Committee venture to hope that His Honour the Lieutenant-Governor will be pleased to recognize its importance by granting their prayer.'

"On this occasion I am very glad that we are able to meet their wishes without adding to the inconvenience of the Council, but I think I must protest against a body of the importance of the British Indian Association addressing us two days before the Bill is down for final consideration, asking us to postpone that consideration with reference to a point which has been discussed in all the newspapers since the issue of the report of the Select Committee which has been before them for five whole weeks, and regarding a section which has been the law of the land, with a slight alteration, for the last twenty years. I think it would be more respectful to the Council, and more conducive to public business, if they would take matters of that kind into their consideration a little earlier before the date of actual discussion in Council.

"On this occasion, as I said, I am very glad to be able to meet their wishes, but I do hope that, on Saturday fortnight, to which I propose to adjourn the Council, this Port Bill may be brought up for discussion and settlement."

The Council adjourned to Saturday, the 15th February, 1890.

CALCUTTA;

The 3rd February, 1890. }

C. H. REILY,

Assistant Secretary to the Govt. of Bengal,
Legislative Department.

EXTENSION OF THE BENGAL TENANCY ACT TO ORISSA.

REVENUE DEPARTMENT—LAND REVENUE.

Calcutta, the 24th January, 1890.

RESOLUTION.

READ—

A letter from the Commissioner of Orissa, No. 1850, dated 4th November, 1886, on the subject of the extension of the Bengal Tenancy Act to that Division.

A letter from the Board of Revenue, No. 975A, dated 17th December, 1889, with enclosures, regarding the arrangements to be made for the survey and settlement of Orissa.

THE Collector of Balasore recommended in 1885 that the Lieutenant-Governor should, in the exercise of the power vested in him by section 1, immediately extend the Bengal Tenancy Act of that year to Orissa. The proposal received no local support at the time, and was considered premature by this Government; but it has since been renewed in connexion with the survey and settlement of the Division which is now being taken in hand. The Director of the Department of Agriculture and Land Records has represented that the settlement laws now in force in Orissa, that is to say, Regulation VII of 1822 and Bengal Act VIII of 1879, read with Act X of 1859, do not supply an adequate machinery for adjusting rents, inasmuch as they do not require the ryots to question the Settlement Officer's proceedings till the record is completed, and that the procedure which they established has proved practically unworkable where it has been contested. He observes—

“In proceedings under Chapter X of the Tenancy Act, the case is otherwise. The Settlement Officer's decision has the force of a decree; it must be appealed against within 30 days of the date of the order, and the appeal lies to the superior court of a Special Judge. Settlement proceedings under Chapter X of the Tenancy Act have therefore a sanction and finality which do not attach to proceedings under Act VIII of 1879. Moreover, experience has shown that proceedings under Chapter X of the Tenancy Act, besides being final, can be worked harmoniously and satisfactorily. It appears to me, therefore, that Chapter X of the Tenancy Act should be extended to those portions of Orissa which are from time to time brought under survey.

“The extension of Chapter X to any particular area involves also the extension of the sections of the Act relating to the determination of the status of tenants and to the enhancement and reduction of rent, i.e. sections 19 to 38. As a record of rights will have to be made and fair rents settled under Chapter X, it is evident that the rules for determination of the status of tenants and determination of fair rents prescribed in the Act must also be followed.”

There is also some reason to believe that if the most important portion of the Act is extended to Orissa, it will be convenient to introduce the law in its entirety. It is a question, however, whether the provisions as to preparing price-lists (section 39) and as to the payment of landlords' fees on transfers of tenures (sections 12 and 13) should not be excluded. The provisions as to judicial procedure and sales on decree (Chapters XIII and XIV) may, moreover, be found unsuitable to a province in which rent suits are still tried by Revenue officers.

2. The opinion of the Board and of the Revenue officers employed in Orissa is awaited on the subject; and, as the matter is of considerable public importance, the Lieutenant-Governor will be glad to receive any expression of opinion which may be offered by those interested. Such opinions should be transmitted to this Government before the 15th of April next.

ORDER.—Ordered that this Resolution be published in the *Calcutta Gazette* for the information of the public.

By order of the Lieutenant-Governor of Bengal,

P. NOLAN,
Secretary to the Govt. of Bengal.

THE CANAL REVENUE REPORTS FOR 1888-89.

No. 198 I.A.

Government of Bengal.

PUBLIC WORKS DEPARTMENT.

Irrigation.

Dated Calcutta, the 3rd February 1890.

RESOLUTION.

READ—

The Canal Revenue Reports for 1888-89, and Chief Engineer's Note on same.

The outlay, direct and indirect, on canals in Bengal, for which capital accounts are kept, amounted at the close of the year 1888-89 to Rs. 7,15,56,843. Of this sum Rs. 6,05,42,061 is the amount spent on Major Irrigation Works and charged to Loan Funds; while the expenditure on Minor Works was Rs. 1,10,14,782, of which Rs. 93,75,327 was provided from Provincial revenues, Rs. 8,66,000 was the grant contributed by the Imperial Government from Famine Relief and Insurance Funds in aid of the construction of the Orissa Coast Canal, and Rs. 7,73,455, representing expenditure on surveys and investigations for irrigation works which have not been carried out, was provided from Imperial revenues, but is not now chargeable with interest.

On Major Works the capital outlay during the year was Rs. 7,92,776, of which Rs. 6,38,718 represents the progress made with the revised project for the Orissa Canals, and Rs. 1,51,340, the expenditure on the Sone system; that on Minor Works was Rs. 1,49,475, of which Rs. 1,01,306 was spent on the Orissa Coast Canal, now nearly completed and open to traffic throughout its length, and Rs. 47,862 on the Circular and Eastern Canals.

2. The length of the canals in Bengal now in operation is altogether 864 miles, of which 621 miles are navigable. The area which, in their present state of completion, they are capable of irrigating is 1,422,319 acres, and the area actually irrigated in 1888-89 was 574,216 acres, the crops raised on which are valued at Rs. 1,81,10,045.

The traffic is represented by 195,140 boats which plied on the canals with passengers or cargo, and measured 3,747,300 tons. These figures do not include the traffic on the Nuddea rivers, which were brought under the management of the Public Works Department at the commencement of the year. On these rivers the boats which paid toll were 48,224 in number, and were measured at 839,502 tons.

3. Receipts and expenditure are shown in the following statement, where the results of three years can be compared :—

	1888-89.		1887-88.		1886-87.	
	Receipts.	Expenditure.	Receipts.	Expenditure.	Receipts.	Expenditure.
<i>Major Irrigation Works.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa Canals	2,43,294	4,05,019	2,72,679	5,02,450	1,79,519	5,20,543
Midnapore Canal	2,51,510	2,09,804	2,33,925	2,50,396	2,33,974	2,36,038
Hidgellee Tidal Canal	55,097	78,040	41,858	66,976	53,494	22,735
Sone Canals	8,31,278	7,94,432	5,88,618	7,52,348	9,02,692	5,97,821
Total	13,81,179	14,87,295	10,87,080	15,72,170	13,69,679	13,76,137
<i>MINOR WORKS AND NAVIGATION.</i>						
<i>Irrigation and Navigation Works.</i>						
Saron Canals	20,814	36,332	20,655	29,397	12,427	28,659
Calcutta and Eastern Canals	5,75,125	2,93,801	5,79,934	2,24,656	4,83,654	1,92,264
Orissa Coast Canal	66,174	77,018	53,837	83,507	29,488	61,426
Total	6,62,113	4,07,151	6,54,436	3,37,560	5,25,569	2,82,349
GRAND TOTAL	20,43,292	18,94,446	17,41,516	19,09,730	18,95,248	16,58,486

The net deficit on Major Works is Rs. 1,06,116 contrasting with deficits in 1887-88 of Rs. 4,85,090 and in 1886-87 of Rs. 6,458, while Minor Works shew incomes in 1888-89 of Rs. 2,54,962, in 1887-88 of Rs. 3,16,876, and in 1886-87 of Rs. 2,43,220. All irrigation works taken together shew a net income in 1888-89 of Rs. 1,48,846; but as interest charges payable to the Imperial Government on the capital spent on Major Works amounted to Rs. 23,39,849, the actual deficit to be met from Provincial revenues was Rs. 21,91,003.

4. The better results of 1888-89 as compared with 1887-88 have been mainly due to increased receipts, but the statement shews that considerable reductions of expenditure were also effected. In Orissa one great outlet of expenditure, the reconstruction of the two weirs which were partially overthrown by the floods of 1886, a work which for two years has been a heavy charge on the revenues of the Orissa Canals, is now happily closed. On the other hand, the ordinary maintenance charges of these canals are found to be higher than usual, a point to which the attention of the Superintending Engineer has been drawn in the Chief Engineer's Note. It seems probable, however, that, so long as the reconstruction of the weirs was in progress, expenditure on ordinary repairs was restricted to the more imperative requirements of the works, and more therefore had to be spent in 1888-89 in carrying out repairs which could be and had been postponed for a while. The cost of establishment chargeable against Revenue, which in 1886-87 was Rs. 5,16,714 for the works given in the table above, rose in 1887-88 to Rs. 7,21,376, an increase due not to greater extravagance in the establishment employed, but to the introduction of a new and fairer method of distributing establishment charges between Irrigation and Roads and Buildings. For 1888-89 the corresponding figure is Rs. 7,01,050, and the saving would have been greater but for an increase of Rs. 27,996 in the cost of establishments employed under Civil officers for the collection of revenue on the Orissa, Midnapore and Sone Canals, an increase which was due chiefly to the greater amount of work involved in realising the heavier collections. On the whole, therefore, there has been a substantial saving in the charges incurred for establishment on the maintenance and management of the canals. The occurrence of this saving can be traced chiefly to the increased amount of work carried out by the Irrigation staff on Roads and Buildings, and the consequent transfer of a larger share of establishment charges from the Irrigation to the Roads and Buildings Branch. Similarly the larger Capital expenditure in 1888-89, on works not chargeable to Revenue, has tended to relieve the canal Revenue account of a portion of its establishment charges.

5. The revenue collected in the last three years on the works mentioned in the above statement is shown below:—

HEAD.				REVENUE		
				1888-89.	1887-88.	1886-87.
				Rs.	Rs.	Rs.
Water-rates	...	...	...	10,22,352	7,69,362	10,43,342
Navigation	...	...	...	9,74,105	9,21,482	7,88,685
Miscellaneous	...	...	...	60,298	66,838	80,171
		Total	...	20,56,755	17,57,682	19,12,198
Less refunds of revenue	...	...	...	13,463	16,166	16,950
		Net total receipts	...	20,43,292	17,41,516	18,95,248

6. The recovery of the revenue derived from water-rates from the depression of 1887-88 was assisted by the character of the irrigation season of 1888-89, which was such as to lead to a full appreciation of the value of canal water. On the Sone Canals, where collections had been to some extent suspended in consequence of the agitation of the previous year, the receipts rose from Rs. 5,19,586 to Rs. 7,59,556, and it is clear that the efforts of the managing staff to restore public confidence in the canals have been attended with success. Irrigation in Orissa also has received a fresh impetus, and the collections of 1888-89 are higher than those of any year since 1882-83, while on the Midnapore Canal, where no great development of irrigation can be expected owing to the limited and fluctuating character of the source of supply, there is a slight improvement on the results of 1887-88.

7. The activity of irrigation in 1888-89 is evident from the figures in the following table, where actual areas irrigated during the last three years are shown:—

					1888-89.	1887-88.	1886-87.	
					Acre.	Acre.	Acre.	
Orissa	{	Kharif	...	...	156,319	108,867	75,115
		Rabi	...	...	2,779	502	2,440
		Perennial	...	...	194	137	154
		Total			...	159,292	109,506	77,709
Midnapore	...	Kharif, including boro crop	...	...	69,777	65,864 *	69,762
Sone	{	Kharif	...	...	69,628	57,595	30,982
		Rabi	...	...	69,817	27,501	16,662
		Perennial	...	...	4,600	6,265	11,626
		Hot-weather	...	...	11,762	13,855	15,278
		Five-year lease	...	...	200,102	210,164	194,556
Total			...	355,909	315,380	268,204		
Total Major Works			...	584,978	490,750	415,675		
Sarun	{	Kharif	...	...	3,897	1,699	566
		Rabi, including hot-weather...	...	...	3,316	2,519	1,580
Total Minor Works			...	7,213	4,218	2,146		
GRAND TOTAL, MAJOR AND MINOR WORKS					...	592,191	494,968	417,821

8. The "earnings" of the year's work, of which the above table shows the extent, are as follows:—

						Water rates earned. 1888-89. Rs.
Orissa Canals	...	...	...	...	...	2,42,808
Midnapore Canal	...	...	...	...	...	1,31,433
Sone Canals	...	...	...	...	...	8,05,790
Sarun Canals	...	...	...	...	...	21,850
Total						12,01,881

These sums represent the whole of the liabilities incurred by cultivators on crops raised by canal water during the year. In previous years the definition of the word "earnings" has been restricted to the assessments, which were not only fully completed, but also legally recoverable within the year. Exact returns of "earnings" (in the wider sense of the word now adopted) are not available for previous years; but owing to the extended use of canal water already noticed, the earnings of 1888-89 considerably exceed those of 1887-88 and 1886-87. This is in favour of good collections in 1889-90.

9. The arrears of water-rates outstanding at the close of each of the last three years are shown in the following statement:—

NAME OF CANAL.			ARREARS.		
			1st April 1889.	1st April 1888.	1st April 1887.
			Rs.	Rs.	Rs.
Orissa Canals	...	...	1,14,597	92,109	87,458
Midnapore Canal	...	...	84,773	56,493	50,749
Sone Canals	...	...	3,80,613	4,11,281	2,31,582
Sarun Canals	...	...	34,927	33,492	32,712
Total			6,14,910	5,93,375	4,02,501

NOTE.—The figures are those of the Examiner, Public Works Accounts; but it is believed that they will require correction, since they do not agree with those given by the Superintending Engineer, which again differ from those of the Collector.

The reduction effected in the outstanding balances of the Sone Canals is less than the increments in the balances of the Orissa and Midnapore Canals taken together. The progress made with collections on each system can be compared as follows :—

		Percentage of current demand adjusted.	Percentage of arrear demand adjusted.
Sone Canals	...	60	80
Midnapore Canal	...	34	89
Orissa Canals	...	46	72

These results (except in the case of the Sone Canals) cannot be considered good, and it is again necessary to call the attention of district officers in Orissa and Midnapore to the steady growth of the arrear balances as a subject which demands early and energetic treatment.

10. In Navigation Receipts improved results are shown on all the lines except the Calcutta and Eastern Canals. There is reason to suppose that the income from this route, on which the traffic receipts are greater than on all the other canals of the province combined, is being unfavourably effected by the competition of the Central Bengal Railway. Under arrangements which existed before the construction of the railway, when the canals had a monopoly of the traffic, and which have not yet been altered, tolls are only collected at the Calcutta terminus of the boat-route; and the railway is thus enabled to tap the canal traffic before the latter has paid toll, and therefore at present competes with the canal at an advantage. The actual tollage collections for each system are given below for three years—

YEAR.	Orissa Canals.	Midnapore Canal.	Hidgellie Tidal Canal.	Orissa Coast Canal.	Sone Canals.	Calcutta and Eastern Canals.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1886-87	58,654	1,09,693	51,904	28,387	49,665	4,73,193	7,71,796
1887-88	66,028	1,39,374	49,406	52,828	50,984	5,71,872	9,09,292
1888-89	69,830	1,46,769	53,910	65,910	52,162	5,65,491	9,53,163

On the Nuddea rivers the collections fell from Rs. 1,98,318 to Rs. 1,91,749.

11. The number of complaints which came up for disposal during the year was altogether 14,710, of which 12,506 were complaints made during the year and 2,204 were old complaints left over for disposal from the files of the previous year—

	ORISSA.		MIDNAPORE.		SONE.		TOTAL.	
	Number.	Percentage on cases disposed of.	Number.	Percentage on cases disposed of.	Number.	Percentage on cases disposed of.	Number.	Percentage on cases disposed of.
Pending from last year	1,503	.....	84	.....	625	.....	2,212	.....
Filed during the year	3,789	.....	1,647	.....	7,602	.....	12,498	.....
Total	5,292	.....	1,731	.....	7,687	.....	14,710	.....
Disposed of { Admitted	.....	.....	216	12.5	2,253	39.0	.....	.....
Dismissed	.....	.....	1,276	87.5	3,519	61.0	.....	.....
Total	4,110	100.0	1,492	100.0	5,772	100.0	11,374	100.0
Pending on 31st March 1889	1,183	.....	239	.....	1,915	.....	3,336	.....
Area irrigated in 1888-89	159,292	.....	60,777	.....	355,909	.....	584,078	.....
Proportion of acres irrigated to one complaint (current year only).	42.04	.....	42.3	.....	50.4	.....	46.7	.....
Ditto for 1887-88 (including cases pending from previous years).	37.9	.....	78.3	.....	46.7	.....	47.5	.....

The above table, which is an abstract of the information given in the various Revenue reports on the filing and disposal of complaints, is defective in the case of the Orissa Canals, where the Deputy Revenue Superintendent has failed to distinguish the claims admitted and those rejected. Also, since in the reports of 1887-88 current and pending complaints were taken together, it is impossible to exactly compare the work done in each year. As, however, the number of complaints, current and pending, in 1887-88 was 10,332, being in the ratio of 1: 47.5 to the number of acres irrigated, while in 1888-89 the number of current complaints is 12,498 and the ratio 1: 46.8, it is clear that not only was the number of complaints greater in the latter year, but the proportion of complaints with regard to the area irrigated has also risen. In the case of the Midnapore Canal that proportion has almost doubled—an unsatisfactory state of affairs which should have received attention in the reports of the officers responsible.

12. The number of certificates issued for the recovery of arrears has fallen from 28,805 to 19,536, and the number pending at the close of the year from 19,536 to 15,880—

		Pending at close of 1887-88.	Instituted during 1888-89.	Total.	Disposed of.	Pending at close of 1888-89.
Midnapore	...	5,310	11,201	16,511	9,326	7,185
Orissa	...	9,047	5,259	14,306	8,553	5,753
Sone	...	5,179	4,216	9,395	6,453	2,942
Total	...	19,536	20,676	40,212	24,332	15,880

The reduction in the cases pending has been effected entirely on the Sone and Orissa Canals, as in Midnapore there is a considerable and highly unsatisfactory increase, notwithstanding that the number of cases disposed of is actually higher than in either of the other systems. The percentage, however, of cases disposed of, as compared with the number pending and instituted, is not so good, the respective percentages being for Midnapore 56.5, Orissa 59.8, and Sone 68.7. Judging by the very large proportion of cases struck off compared with the total number disposed of in Midnapore, namely, 5,478, or nearly 59 per cent., it appears probable that sufficient care is not exercised in issuing these certificates, and that much unnecessary work is in consequence thrown on the officer who is trusted with their disposal.

13. The Lieutenant-Governor notes with satisfaction the names of the various officers to whom Colonel Harrison awards special praise, and he takes this opportunity, on Colonel Harrison's connection with the province being severed, of recording his acknowledgment of the excellent service rendered by him during his tenure of the office of Chief Engineer and Joint-Secretary, and of the admirable tact and judgment which Colonel Harrison has always displayed in administering the department confided to him.

ORDER.—Ordered that a copy of this Resolution, and of the Note and its accompaniments, be submitted to the Government of India, in the Public Works Department, for information; also that copies be forwarded to the Appointment, Revenue, and Financial Departments of this Government; the Board of Revenue, Lower Provinces; the Commissioners of the Presidency, Burdwan, Patna, and Orissa Divisions; the Collectors of the 24-Pergunnahs, Nuddea, Hooghly, Midnapore, Burdwan, Patna, Shahabad, Gya, Sarun, Cuttack, and Balasore; the Superintending Engineers of the Orissa, South-Western and Sone Circles; and Examiner, Public Works Accounts, Bengal, for information.

By order of the Lieutenant-Governor of Bengal,

C. W. I. HARRISON, *Lieut.-Col., R.E.,*

Offg. Joint-Secy. to the Govt. of Bengal,

P. W. Dept.

Government of Bengal.
PUBLIC WORKS DEPARTMENT.
IRRIGATION BRANCH.

REVENUE REPORT.

Note by **LIEUTENANT-COLONEL C. W. I. HARRISON, R.E., Chief Engineer, on the Canal Revenue Reports for the year 1888-89.**

THE Capital expenditure on Irrigation Works, for which Capital accounts are kept, amounted during the year 1888-89 to Rs. 9,19,020 for direct and Rs. 23,231 for indirect charges—

	Direct charges.	Indirect charges.	Total.
	Rs.	Rs.	Rs.
Capital expenditure not charged against Revenue ...	7,74,547	18,229	7,92,776
Minor Works and Navigation, Provincial ...	1,44,473	5,002	1,49,475
Total ...	9,19,020	23,231	9,42,251

2. The total Capital outlay at the end of the year 1888-89, including indirect charges, was as follows:—

	Direct charges.	Indirect charges.	Total.
	Rs.	Rs.	Rs.
<i>Major Irrigation Works.</i>			
Productive Public Works ...	5,88,83,503	16,58,558	6,05,42,061
<i>Minor Works and Navigation.</i>			
Protective grants—Imperial ...	8,66,000	...	8,66,000
Ordinary revenue { Imperial and Provincial }	98,67,297	2,81,485	1,01,48,782
Total ...	6,96,16,800	19,40,043	7,15,56,843

3. The above outlay is divided under the different projects in the following statement:—

Works.	During 1888-89.			To end of 1888-89.		
	Direct charges.	Indirect charges.	Total.	Direct charges.	Indirect charges.	Total.
<i>Major Irrigation Works.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Orissa Canals ...	6,23,439	15,279	6,38,718	2,35,37,322	5,31,481	2,40,68,803
Midnapore Canal ...	2,655	63	2,718	82,66,010	1,83,711	84,49,721
Hidgellee Tidal Canal ...	...	...	...	17,95,489	44,897	18,40,296
Sone Canals ...	1,48,443	2,897	1,51,340	2,52,84,682	8,98,559	2,61,83,241
Total ...	7,74,547	18,229	7,92,776	5,88,83,503	16,58,558	6,05,42,061
<i>Minor Works and Navigation.</i>						
Tirhoot Project ...	...	...	...	5,31,425	74,650	6,06,075
Damoodah Project ...	(—)1,200	...	(—)1,200	1,51,141	16,239	1,67,380
Calcutta and Eastern Canals ...	47,862	1,507	49,369	52,27,428	61,057	52,88,485
Orissa Coast Canal ...	97,811	3,495	1,01,306	41,54,073*	1,02,356	42,56,429
Sarun Canals ...	...	...	...	6,69,230	27,183	6,96,413
Total ...	1,44,473	5,002	1,49,475	1,07,33,297	2,81,485	1,10,14,782
GRAND TOTAL ...	9,19,020	23,231	9,42,251	6,96,16,800	19,40,043	7,15,56,843

* Includes expenditure of Rs. 8,00,000 from famine protective grants.

REVENUE.

4. The total revenue receipts, working expenses and charges for interest in respect of the works which are classed as Major Irrigation Works during 1888-89, and four previous years, are shown in the following statement:—

PARTICULARS.	1886-89.	1887-88.	1888-89.	1889-90.	1890-91.
	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts from all sources ...	13,81,179	10,87,080	13,69,679	15,74,272	12,99,876
Working expenses (direct and indirect charges) ...	14,87,295	15,72,170	13,76,137	11,98,291	12,27,414
Net revenue ...	(—)1,06,116	(—)4,85,090	(—)6,458	3,75,981	72,463
Charges for interest ...	23,39,849	23,13,448	22,91,006	22,66,710	22,29,979
Deficit ...	24,45,965	27,98,536	22,97,464	18,90,729	21,57,517
Rate per cent. on Capital outlay ...	4.04	4.68	3.88	3.23	3.72

INTEREST.

5. The total amount of interest payable to the Imperial Treasury on account of Major Irrigation Works for the year 1888-89 is Rs. 23,39,849.

FINANCIAL RESULTS.

6. The following statement shows the financial results of both Major Irrigation Works and Minor Works and Navigation, of which Capital and Revenue Accounts are kept, to the close of the year 1888-89:—

	Major Irrigation Works.	Minor Works and Navigation.
	Rs.	Rs.
Direct revenue ...	1,51,85,443	2,05,73,482
Working expenses (direct charges) ...	1,58,26,535	79,97,925
Results on direct charges only ... Loss ...	6,41,092	Profit ... 1,25,75,557
Indirect charges debitable to revenue ...	8,27,907	2,05,967
Results on both direct and indirect charges ... Loss ...	14,68,999	Profit ... 1,23,69,590
Charges for interest on Capital ...	3,40,63,927	Not calculated.
Net results, including interest to end of 1888-89 ... Loss ...	3,55,32,926	.....

Thus on Major Irrigation Works the net loss including interest is Rs. 3,55,32,926, or 58.69 per cent., of the gross Capital outlay, including all charges.

7. The financial results of Minor Works and Navigation, of which only revenue accounts are kept, are shown below:—

	Rs.
Direct revenue ...	78,22,208
Working expenses (direct charges) ...	42,44,206
Results on direct charges only ... Profit ...	35,78,002
Indirect charges debitable to revenue ...	2,21,813
Results on both direct and indirect charges ... Profit ...	33,56,189

EXPENDITURE.

8. The expenditure on, and receipts from, Irrigation, Navigation, and Agricultural Works during the year 1888-89, as compared with those of the year 1887-88, are shown below:—

	1888-89.	1887-88.
EXPENDITURE.	Rs.	Rs.
42—Major Irrigation Works, Working Expenses—		
Provincial ...	14,87,295	15,72,170
43—Minor Works and Navigation—		
Irrigation and Navigation Works—		
Provincial ...	7,19,087	8,26,214
Agricultural Works—		
Provincial ...	7,83,156	7,17,359
Contributions ...	9,773	5,849
Total ...	7,92,929	7,23,208
49—Irrigation—Capital expenditure not charged against revenue ...	7,92,776	5,57,976
GRAND TOTAL ...	37,92,087	36,79,568

RECEIPTS.				Rs.	Rs.	RECEIPTS.
XXIX—Major Irrigation Works—Direct receipts—						
Provincial	...	...	...	13,81,179	10,87,080	
XXX—Minor Works and Navigation—						
Irrigation and Navigation Works—						
Provincial	...	...	...	8,57,793	8,54,038	
Agricultural Works—						
Provincial	...	...	...	9,733	8,606	
Total				22,48,705	19,49,724	

NOTE.—Commencing with the year 1888-89, "Refunds of revenue" are treated as reduction of receipts and not as charge against Working Expenses, and "Indirect charges" are shown in addition to direct charges under Working Expenses, in accordance with the suggestion contained in Government of India's letter No. 1647, dated 15th August 1889.

9. The areas irrigated during the year 1888-89 and the four preceding years, by the Major Irrigation Works, are shown in the following statement:—

YEAR.	ORISSA CANALS.				MIDNAPORE CANAL.				SONE CANALS.				TOTAL.			
	Kharif.	Rabi.	Perennial.	Total.	Kharif.	Rabi.	Perennial.	Total.	Kharif, including five-year leases.	Rabi.	Perennial.	Total.	Kharif.	Rabi.	Perennial.	Total.
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.
1888-89 ...	156,319	2,779	194	159,292	66,408	3,369	...	69,777	281,492	69,817	4,609	355,909	504,219	75,965	4,794	584,978
1887-88 ...	108,867	502	187	109,556	65,864	...	...	65,864	281,614	27,501	6,265	315,380	426,345	28,003	6,402	460,750
1886-87 ...	75,115	2,440	154	77,709	69,762	...	...	69,762	239,916	16,602	11,626	268,204	384,793	19,102	11,789	415,675
1885-86 ...	70,563	1,606	171	72,339	70,604	...	...	70,604	271,433	50,610	16,527	332,570	412,600	51,215	10,698	475,513
1884-85 ...	54,181	2,994	197	57,372	69,294	...	...	69,294	283,941	77,558	9,262	370,661	467,316	80,532	9,459	497,327

The year's working and its financial results will now be dealt with separately for each of the canal systems of the province.

ORISSA CANALS.

10. The Capital, Interest, and Revenue Accounts of these canals are given below:—

1.—CAPITAL ACCOUNT.

CAPITAL ACCOUNT.

HEADS OF ACCOUNT.				Outlay during 1888-89.		Outlay to end of 1888-89.	
DIRECT CHARGES.				Rs.		Rs.	
I.—Works	...	...	...	4,88,452		1,69,03,279	
II.—Establishment	...	...	...	1,06,375		43,03,670	
III.—Tools and plant	...	...	...	15,043		20,01,555	
IV.—Suspense accounts	...	...	...	21,307		1,46,525	
Loss by exchange	...	...	...	...		2,68,070	
Total	...	...	...	6,31,177		2,36,23,099	
V.—Less—Receipts on Capital account	...	...	...	7,738		85,777	
Net total direct charges	...	...	...	6,23,439		2,35,37,322	
INDIRECT CHARGES.							
Capitalization of abatement of land revenue	...	...	...	386		32,842	
Leave and pension allowances	...	...	...	14,893		4,98,639	
Total indirect charges	...	...	...	15,279		5,31,481	

The capital outlay of 1888-89 shown in this statement represents the progress made with the works provided in the revised estimates of the Orissa Project. Owing to a slight scarcity of food-supply in the district, a more plentiful supply of labour was available than has been the case for some years, and the amount of earthwork carried out on canal and distributary banks, drainage works and protective embankments was more satisfactory. The additional lengths completed and the fresh areas brought under command, or provided with distributaries, will be shown in a later paragraph. The list of masonry works and buildings either put in hand or brought to completion also indicates a fair rate of progress during the year.

INTEREST
ACCOUNT.

2.—INTEREST ACCOUNT.

			Rs.
Interest charges to end of 1887-88	...	...	1,28,54,084
Ditto for 1888-89	...	...	9,29,024
Total	...	...	1,37,83,108

REVENUE
ACCOUNT.

3.—REVENUE ACCOUNT (Actuals).

	EXPENDITURE.			RECEIPTS.	
	During 1888-89.	To end of 1888-89.		During 1888-89.	To end of 1888-89.
	Rs.	Rs.		Rs.	Rs.
DIRECT CHARGES.					
<i>I.—Maintenance and Repairs.</i>			Water-rates ...	1,51,365	16,87,867
Works (extensions and improvements) ...	...	1,644	Navigation ...	77,908	10,64,564
Repairs ...	2,36,694	35,47,088	Miscellaneous ...	14,242	2,44,248
Compensation ...	...	53	Direct revenue realized in England ...	...	38,686
Establishment, including direction and accounts ...	70,201	8,27,613	Total ...	2,43,515	30,35,365
Tools and plant ...	21,156	2,14,313	Less—Refunds of revenue ...	221	3,582
Profit and loss ...	...	640			
Total ...	3,28,051	45,91,351			
<i>II.—Revenue management.</i>					
Irrigation establishment ...	43,161	6,69,722			
Navigation establishment ...	15,734	1,75,731			
Total ...	58,895	8,45,453			
<i>III.—Direct expenditure in England ...</i>	...	6,945			
Total direct charges ...	3,86,946	54,43,749			
INDIRECT CHARGES.*					
Capitalized abatement of land revenue ...	...	...	Net total receipts ...	2,43,294	30,31,783
Leave and pension allowances ...	18,073	2,62,248	Deficit ...	1,61,725	26,74,214
Total Indirect Charges	18,073	2,62,248	Total ...	4,05,019	57,05,997
Total Working Expenses	4,05,019	57,05,997			

* These are now shown under the suggestion of the Government of India.

11. The income calculated on "earnings" of the year and expenditure are shown below:—

Expenditure.	Amount.	Earnings.	Amount.
DIRECT CHARGES.	Rs.		Rs.
<i>I.—Maintenance and repairs.</i>			
Repairs ...	2,36,694	Water-rates ...	2,42,808
Establishment, including direction and accounts ...	70,201	Navigation ...	77,908
Tools and plant ...	21,156	Miscellaneous ..	14,242
Total ...	3,28,051	Total ...	3,34,958
<i>II.—Revenue management.</i>			
Irrigation establishment ...	43,161		
Navigation ditto ...	15,734		
Total ...	58,895	<i>Less—Refunds of revenue ...</i>	<i>221</i>
Total direct charges ...	3,86,946	Net earnings ...	3,34,737
Indirect charges ...	18,673	Deficit ...	70,282
Total working expenses ...	4,05,619	Total ...	4,05,019

By the orders of the Government of India, a change is now introduced in the method of calculating the amount of water-rates shown as "earned" in the above statement. Under the rules in force on the Orissa canals, a portion of the water-rates assessed in any year do not become legally due until the 1st May, and a further portion till the 1st June, of the following year. Hitherto, therefore, as explained in previous Revenue Reports, the earnings of each year have been calculated by excluding those instalments of the assessments which would not become due till the year following; but, on the other hand, including those instalments of the assessments of the previous year, which, though undoubtedly earned in that year, have only become due in the year under report. The amount thus arrived at has hitherto been shown in the statistical table IVC attached to each report as the amount of revenue assessed. In this and future reports, however, the 'earnings' of a year will be taken to mean the amount of the liabilities incurred by cultivators for water supplied during that year, without regard to the date on which those liabilities may become legally recoverable. The statement also now for the first time includes, on the expenditure side, indirect as well as direct charges.

12. The lengths of the canals and distributaries in operation at the close of the year 1888-89, compared with 1887-88, are given in the statement following:—

NAME OF CANAL.	1888-89.								1887-88.							
	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.	Navigable canals.	Canals for irrigation only.	Distributaries and village channels.	Area protected from flood.	Area under command.	Area provided with distributaries.	Area irrigated.	Percentage of area irrigated to area provided with distributaries.
	Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.		Miles.	Miles.	Miles.	Acres.	Acres.	Acres.	Acres.	
Kendraparah ...	39	...	354½	129,421	161,110	92,552	...	...	39	...	348½	129,421	161,110	91,000	...	...
Ditto extension ...	15	...	...	8,000	7,000	...	...	...	15	...	...	8,000	7,000	...	...	...
Gobri (including extension.)	21	...	...	27,251	53,290	...	72,790	70·8	21	...	...	27,251	53,290	...	54,404	54·2
Pattamondoo ...	...	47	33½	65,600	61,250	16,172	...	...	...	47	32½	65,600	61,250	9,387	...	...
Taldundah ...	27	...	71½	19,520	15,250	15,250	40,301	71·0	27	...	71½	19,520	15,250	15,250	31,227	54·9
Machgong ...	4	25	122½	44,928	97,057	41,600	...	...	4	15	122½	44,928	97,057	41,600	...	...
Arvel Canal, Range I ...	33	...	131½	80,128	48,815	48,815	18,092	37·0	33	...	131½	80,128	48,815	47,780	15,312	32·0
Total Mahanuddee Series ...	139	75	715	375,808	375,772	308,419	131,279	62·9	139	62	706½	375,808	344,921	205,017	100,943	43·2
Arvel Canal, Range II ...	12½	...	...	10,000	...	...	2,385	...	12½	...	...	10,000	...	...	994	...
Ditto, Range III ...	19	...	47½	57,500	42,500	25,028	60·3	...	19	...	11½	57,500	21,770	7,569	35·0	...
Arvel Canal ...	6½	...	...	70,000	...	...	...	...	...	...	...	...	...	...	...	...
Total Brahmini-Byturni Series ...	38	...	47½	137,500	42,500	28,013	65·9	31½	...	...	11½	67,500	21,770	8,563	39·8	...
Total Orissa Canals ...	177	75	760½	513,308	511,272	336,432	159,292	63·4	170½	69	718	475,808	412,421	226,787	109,500	48·9

There has been an increase of $6\frac{1}{2}$ miles in the length of canals intended for the purposes both of irrigation and navigation, and of 13 miles in the length of those to be used for irrigation only. The former increase is due to the completion of the Jajepore Canal in the Brahmini-Byturni Series, which was opened for traffic in the month of August 1888, and the latter to the completion of the Machgong Extension Canal in the Mahanuddee Series, as far as the 32nd mile, up to which point it has been filled with water.

There has been no increase in the length of village channels, and none are in progress upon any of the canals, but the length of distributaries has increased during the year to the extent of $42\frac{1}{2}$ miles, of which $6\frac{3}{4}$ miles are on the Kendrapara and Pattamoondi Canals, and $35\frac{3}{4}$ miles on the High Level Canal, Range III, where the whole length of distributaries proposed to be constructed has been completed with the exception of about two miles of main distributary, and a few minor branches required for affording irrigation to the high ground near the Main Canal and the Orissa Trunk Road. The area protected from flood remains the same as it was in the previous year, as the Daib embankment has not yet been fully completed, but there is an increase of 98,851 acres in the area under command in consequence of the completion of that portion of the Machgong Extension Canal which lies above the 32nd mile, and of the Jajepore Canal, the former of which has added 28,851 acres, and the latter 70,000 acres to the area commanded. The area provided with distributaries has also increased to the extent of 24,132 acres, of which 3,402 acres are on the Kendrapara, Pattamoondi and High Level, Range I, canals of the Mahanadi Series, and 20,730 acres, on the High Level Canal, Range III, of the Brahmini-Byturni Series.

RAINFALL.

13. The rainfall of the year 1888-89 and of the previous year in the Cuttack and Balasore districts is given in the Statistical Table No. IVE. In both districts the total fall registered is very nearly the same as that registered in 1887-88.

The average rainfall at the thirteen stations situated within the area commanded by the Orissa canals for nineteen years is 55.18 inches, whilst the fall of the year at the same stations was 47.94, or 7.24 inches below the average.

From the statement of rainfall at the eleven stations in the upper districts drained by the Mahanadi, which has been supplied by the Superintending Engineer, it appears that the average fall during the year under review was 43.08 inches against 52.18 inches of the year 1887-88, showing a decrease of 9.10 inches. The average for the last seven years up to and including 1887-88 was 46.22 inches, so that the fall of the year under review is somewhat below the average.

From the table below, which gives the average rainfall observed during the kharif and rabi months during the last seven years at thirteen stations within the tract irrigated by the Orissa canals, it is evident that the kharif rains, though on the whole more plentiful than usual, were unequally distributed, a very short fall being registered in July and October, while that of August was unusually large. The deficiency in October was, however, partly made up by an increase in November, when the quantity registered was 2.01 inches in excess of the fall of the previous year:—

		AVERAGE OF THIRTEEN STATIONS.					
		1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Kharif season	July	13.03	9.58	10.68	10.65	11.67	8.91
	August	9.69	7.45	10.44	9.86	8.49	21.61
	September	9.77	11.29	10.08	14.66	6.12	8.36
	October	1.78	5.06	4.84	6.87	2.69	1.11
	Total	34.27	33.38	36.04	42.04	28.97	39.99
Rabi season	November	0.15	0.23	1.26	1.56	0.87	2.88
	December	1.53	0.07	1.20	0.45	...	...
	January	0.09	0.15	0.39	0.48	1.70	0.06
	February	1.58	2.63	0.05	...	1.26	0.81
Total		3.35	3.08	2.90	2.49	3.83	3.75
Whole year		67.18	60.42	61.49	60.05	47.79	49.07

The amount of rain and its distribution among the canals of the Orissa system is given in the following statement which covers the last five years:—

YEAR.	MAHANUDDEY SERIES.									BRAHMINER-BYTURNI SERIES.								
	Kendraparah system.			Taldundah system.			High Level Canal, Range I.			High Level Canal, Range II.			High Level Canal, Range III.					
	Kharif.	Rabi.	Whole year.	Kharif.	Rabi.	Whole year.	Kharif.	Rabi.	Whole year.	Kharif.	Rabi.	Whole year.	Kharif.	Rabi.	Whole year.			
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1884-85	35.65	4.75	54.75	29.52	2.15	47.85	32.24	2.45	52.15	31.78	2.94	46.24	30.24	2.86	48.34			
1885-86	31.59	1.82	52.64	30.44	2.82	50.42	31.63	3.14	40.88	34.14	2.64	55.41	56.20	2.60	55.27			
1886-87	39.97	2.66	63.59	42.86	3.97	64.76	41.67	1.53	63.16	44.02	1.48	62.18	42.72	2.08	64.79			
1887-88	28.93	3.74	49.35	28.59	3.39	46.90	29.48	1.98	44.77	27.68	2.49	47.94	30.15	3.26	52.83			
1888-89	37.07	3.28	45.50	44.39	4.54	53.28	38.78	1.93	44.64	42.72	2.37	51.18	44.56	2.87	55.50			

14. The following statement shows the areas irrigated and yearly rainfall since the year 1879-80:—

IRRIGATION.

YEAR.	Kharif.	Rabi.	Perennial.	Total.	Rainfall.
	Acres.	Acres.	Acres.	Acres.	Inches.
1879-80 ...	105,186	3,616	236	109,038	60.85*
1880-81 ...	112,171	4,877	173	117,221	85.10*
1881-82 ...	126,611	5,403	264	132,278	56.92†
1882-83 ...	128,530	4,100	398	133,028	59.03†
1883-84 ...	47,035	1,381	344	48,760	57.21†
1884-85 ...	54,181	2,994	197	57,372	50.40†
1885-86 ...	70,563	1,665	171	72,339	52.59†
1886-87 ...	75,115	2,440	154	77,709	60.07†
1887-88 ...	108,867	502	137	109,506	47.84†
1888-89 ...	156,319	2,779	194	159,292	47.94†

* Mean of observations in Cuttack and Marsaghai.

† Ditto ditto at 13 stations throughout canal-irrigated area.

The spread of kharif irrigation has again been very marked, as the area which has taken water during 1888-89 is greater by 47,452 acres than the irrigated area of 1887-88, and greater by 27,789 acres than the irrigated area of any year since the construction of the canals. The partial failure of the July rains and the drought in October were the main causes which brought about this result.

To compare with 1887-88, of the increase of 47,452 acres in kharif irrigation, 18,019 acres are contributed by the High Level Canal, Range III, where the rate of increase is as much as 241 per cent., and 16,257 acres by the Kendraparah Canal. All the canals, however, show improved results, the lowest rate of increase being on the High Level Canal, Range II, where it was 18 per cent. Of the 2,227 more acres of rabi irrigated, 2,114 acres represent the increase on the Kendraparah Canal.

The whole area of all crops irrigated, being 159,292 acres, bears a ratio of 63 per cent. to the area under command of distributaries, already given as 250,919 acres. The ratio by canals is as follows:—

	1887-88.	1888-89.	Increase.
Kendraparah system ...	54.2	70.8	16.6
Taldundah ditto ...	54.9	71.0	16.1
High Level, Range I ...	32.0	37.0	5.0
High Level, " II ...	No distributaries.		
High Level, " III ...	35.0	60.3	25.3

15. The whole of the irrigated area was assessed. The figures below show the method of assessment alongside of the figures of the two preceding years for purposes of comparison:—

				1888-89.	1887-88.	1886-87.
				Acre.	Acre.	Acre.
Kharif	{	Five-year leases	...	152,282	102,863	73,699
		Annual leases	...	57	37	68
		Unauthorized irrigation	...	3,981	5,975	1,354
Rabi			...	2,779	501	2,439
Perennial		Sugarcane	...	193	130	149
Total, including unauthorized irrigation				159,292	109,506	77,709
Total, excluding unauthorized irrigation				155,311	103,531	76,355

It is observed, however, that though the figures used in the statements in this and the preceding paragraphs, which give a total of 159,292 acres as the area irrigated, are those adopted by the Superintending Engineer throughout his report of the year's operations, yet it is stated that the area actually under lease at the close of the year was 146,046 acres only. The difference thus observable between the area irrigated and that leased is described by the Superintending Engineer "as due to the areas provisionally entered in the leases of some of the canals, the lands commanded by which have not as yet been cadastrally surveyed, having been smaller than they were afterwards found to be when the measurements of the area actually watered came to be made." And the Deputy Revenue Superintendent summarises the results of the year as follows:—

				Rs.
Area leased and assessed during the year	...	...	...	1,30,258
Unauthorized irrigation	...	...	...	3,981
Assessed area of which measurements were completed after the close of the year	...	...	...	25,053
Total				1,59,292

1888-89, AN
ANXIOUS PERIOD
FOR THE FROS-
PRITY OF THE
CANALS.

16. With the close of the year 1882-83 ended the first period of five-year leases which had been introduced in these canals in 1878-79; and since during that period it was deemed desirable to cause all the leases to end at the same time, with a view to permitting of an alteration of the rate simultaneously over the whole of the Orissa system. Should such alteration be considered advisable, all the leases given subsequently to 1878-79 were given nominally for five years, that is to say, at the five-year lease rate, but they really expired simultaneously on the 31st March 1883. With 1883-84 therefore commenced a new period of five years, and the year happening to be one somewhat favourable to canal irrigation, a considerable area was leased, all the leases for which lapsed on the 31st March 1888, causing the year under review to be opened with a leased area of 45,716 acres only. Up to the end of June very few fresh leases had been entered into, and matters began to wear a serious look so far as the interests of the canals were concerned; and it was not until the demand for canal water arose in July that any good start was made. During that month and August, notwithstanding the heavy rain at the close of the latter month, leases were obtained for some 43,000 acres of either new irrigation or renewals of old leases. A small increase in September and the drought in October added some 40,000 acres more, bringing the total by the end of November to about 131,000 acres. Subsequent measurement and the correction of estimated areas in the leases eventually raised the area to that given above.

RANGE I, HIGH
LEVEL CANAL, A
SPECIAL CAUSE FOR
ANXIETY.

Range I of the High Level Canal was the subject of special anxiety, since leases for no less than 13,000 acres out of the 14,605 acres shown as leased in 1887-88 lapsed at the close of that year. It was feared that many of the leases would not be renewed, but the scantiness of the rainfall in October had a most marked effect, and the area now leased is larger than it has been in any previous year.

17. At first sight the area now reached seems to lead to the conclusion that all the land under lease at the end of 1882-83 had now been re-leased. Such, however, is not the case, and dates given in the Superintending Engineer's Report show that though the area leased up to the end of 1888-89, viz. 146,046, it is fairer to take this figure than 159,292 acres, since the latter is the result of careful measurement which was wanting in 1882-83, is 13,018 acres more than the area leased up to the close of 1882-83, yet that, if the areas by canals be compared, it appears that even if none of the leases on the older canals be for entirely fresh irrigation, *i. e.*, for land which had not been irrigated up to 1882-83, a considerable area of lapsed irrigation has still to be recovered, the increase of 13,018 acres being practically wholly due to increase in the High Level Canal, and especially Range III thereof. The remaining canals have not yet recovered the depression which followed the expiry of the first set of five-year leases as will be seen from the following table:—

NAME OF CANAL.	AREA LEASED.		More.	Less.
	1888-89.	1882-83		
	Acres.	Acres.	Acres.	Acres.
Kendrapara, including Gobri	53,867	60,374	...	6,507
Gobri Extension	1,499	...	1,499	...
Pattamoondi	10,649	12,094	...	1,545
Faldundah	10,285	10,719	...	434
Machgong	27,241	34,012	...	6,771
High Level Ranges I and II	19,162	14,244	4,918	...
Doitto Range III	23,443	1,585	21,858	...
Total	146,046	133,028	28,275	15,257

18. It is clear from what has been said above that the Orissa Canals are very dependent on the nature of the season at a critical period for their prosperity; and there is no doubt but that, from the point of view of canal interests only, the drought of October 1888 was the most opportune occurrence that could have taken place, inasmuch as it happened just as the former leases had expired and there was no interval during which the cultivators might have come to think that they could do without canal water and to doubt whether it was to their interest to insure their lands against drought by a small yearly payment. The drought made them thoroughly appreciate the benefits of canal irrigation; and, as a matter of fact, it was in the real interests of the cultivators themselves that no such interval should occur; for nothing but continuous irrigation will enable them to be prepared with the means and method of irrigating with success and with universal benefit when drought really comes.

19. The information regarding five-year leases is not sufficiently exact to permit of a correct conclusion being formed as to how the area under five-year leases is progressing, especially whether lapsed leases are being renewed. It would be as well if this point were properly taken up by the Superintending Engineer and Deputy Revenue Superintendent in their reports for the year now in progress, since the renewal of leases will be a better proof than anything else that the Ooriya is at last taking kindly to canal irrigation.

20. At the commencement of the year under review the accounts showed an unrealized balance of Rs. 96,567, of which Rs. 92,110 was for water-rates, and Rs. 4,457 for miscellaneous revenue. The additional assessments which fell due within the year on account of previous years, as well as the year under review, came to Rs. 2,04,535, of which Rs. 1,96,765 was for water-rates. Thus, including arrears, the gross amount, which was liable to be collected during 1888-89, was Rs. 3,01,102, of which Rs. 1,60,328 was realized and Rs. 24,003 either remitted or written off as irrecoverable. Accordingly, the year closed with an unrealized balance of Rs. 1,16,771, of which Rs. 1,14,597 was for water-rates.

This balance is larger than that at the end of the previous year. The increase is due, in a great measure, to the large increase on the assessments during the year. The outstanding balances, however, include considerable demands on account of irrigable but unirrigated beali rice lands—a class of lands which, in cases where beali rice is the only crop grown on them, it has now been decided to strike out of the assessments of the blocks in which they are situated. The outstandings, therefore, will undergo some reduction when these

LAPSED IRRIGATION STILL TO BE RECOVERED.

THE DROUGHT OF 1888-89 VERY BENEFICIAL IN EVERY WAY.

RENEWALS OF LEASES.

ASSESSMENT AND COLLECTIONS.

orders are carried into effect, as well as from the remission recommended by the Deputy Revenue Superintendent, of submerged and damaged leased areas, till now assessed at full rates. The actual realizations during the year, though larger than those of the previous five years, would have been much better, but for the damage to crops caused by drought and abnormal cyclonic weather. The attention of the Deputy Superintendent has, however, been drawn to the steady increase in the outstanding balances, and he has been requested to submit a special report on the measures he would propose for the reduction of these arrears, and on what hopes may be entertained of effecting the reduction at an early date. A detailed account of the balances is given below:—

Year in which amount fell due.	Water-rates.		Miscellaneous.	
	Rs.		Rs.	
1881-82	...	327	...	76
1882-83	...	108	...	246
1883-84	...	435	...	456
1884-85	...	1,123	...	476
1885-86	...	2,642	...	458
1886-87	...	8,040	...	463
1887-88	...	32,907	...	...
1888-89	...	69,015	...	...
Total arrears	...	1,14,597	...	2,175

21. The results of the year as regards water-rate collections are shown below:—

	OUTSTANDINGS OF ALL YEARS UP TO AND INCLUDING 1887-88.			DEMANDS DUE IN 1888-89 FOR THE IRRIGATION OF THAT YEAR.		
	Rupees.	Percentage of demands outstanding on 31st March 1888.	Rupees.	Rupees.	Percentage of demands for the year.	Rupees.
Outstandings to end of 1887-88, with assessments made in 1888-89	...	100.0	1,61,837	...	100.0	1,27,038
Adjustments made { Collections	93,402	57.7	...	57,963	45.6	...
in 1888-89 { Remissions	22,851	14.1	...	62	0.04	...
Total adjustments	...	71.8	1,16,253	...	45.7	58,025
Outstanding on 1st April 1889	...	28.1	45,584	...	54.3	69,013

The percentage of adjustment for old outstandings is 71.8 against 73.6 of the last year, but that for the current demand is 45.7 against 45.1. The proportion of remissions is greater, being 14.1 against 5.7; it was mentioned in last year's report that considerable remissions would have to be made. So far as current demands are concerned, the percentage is the same in both years, being 0.04. The percentage of balances of old arrears still remaining to be collected at the close of the year has risen from 26.4 to 28.1, but the collection of the current year compares favourably with that of the year previous, as the unrealized percentage has fallen from 54.9 to 54.3.

COMPLAINTS.

22. The number of complaints received and the progress made in settling them is shown below:—

	Number pending from last year.	Number filed during year.	Total.	Disposed of during year.	Balance left pending.
Complaints against assessments	1,503	3,789	5,292	4,110	1,182
Miscellaneous	129	887	1,016	957	59
Total	1,632	4,676	6,308	5,067	1,241

The diminution in the arrears is satisfactory, and it is stated that all complaints arising out of the assessment of unauthorized irrigation have been disposed of as far as the Canal Revenue office is concerned. The number of new complaints was swollen by applications based on the recent orders of the Bengal Government regarding the remission of beali lands in five-year blocks, and by those relating to fully assessed lands which had been damaged by inundation.

23. The Superintending Engineer thus compares the kharif duties obtained from the several canals with those obtained in the previous year:—

NAME OF CANAL.	Rainfall during the kharif season.		Duty of quantity entering canal per cubic foot.		Duty of quantity utilised per cubic foot.	
	1888-89.	1887-88.	1888-89.	1887-88.	1888-89.	1887-88.
	Inches.	Inches.	Acres.	Acres.	Acres.	Acres.
Kendraparah Canal System ...	37.07	28.93	92.48	67.39	100.25	71.42
Ditto Canal ...	36.65	25.59	86.22	89.38	97.92	93.77
Pattamoonda do. ...	41.19	33.10	84.04	30.20	119.16	37.73
Gobri do. ...	37.91	25.63	92.33	41.36	99.81	81.62
Taldanda Canal System ...	44.39	28.59	82.60	79.60	217.40	98.70
High Level Canal, Range I ...	38.78	26.48	70.73	57.02	112.03	77.72
Ditto ditto, II ...	42.72	27.98	30.99	40.05	30.99	74.24
Ditto ditto, III ...	44.56	30.15	200.07	64.67	200.07	64.67

So that, except in the case of the High Level Canal, Range II, a higher average duty for the whole season was obtained; a natural consequence of the greater rainfall. In the case of the exception noted, a very high discharge was passed into this canal during October, partly in order to raise the level of the pool above the Byturni weir, for the purpose of benefiting the irrigation on Range III, but principally in order to facilitate irrigation from Range II by raising the level of the water. In the return of the Executive Engineer the whole of this discharge was represented as having been utilised, which, as the Superintending Engineer points out, can hardly have been the case. In future, care will be taken to show the quantity utilised by deducting the discharge at the outfall of the canal into the Byturni river.

During October, when the demand for irrigation was at its highest, and great pressure was brought on the canals, the average duty obtained was 53.48 acres per cubic foot entering the canals, and 60.32 acres per cubic foot utilised.

24. During the year 256 experiments on the outturn of crops were made, half on irrigated and half on unirrigated lands. On lands irrigated during 1888-89, the average weight of paddy per acre is 16.23 maunds and of straw 20.12 maunds, against 16.83 and 25.62, which are the respective averages of the five previous years. On unirrigated lands the figures for the year are 11.02 maunds of paddy against 12.46 maunds obtained in previous years, and 14.02 maunds of straw against an average of 19.05. The average yield per acre during the year therefore from irrigated as well as from unirrigated lands, though greater than it was in 1887-88, must both for grain and straw be considered but moderate.

The difference in favour of irrigation, as shown by these experiments, is 5.21 maunds per acre in grain and 6.10 maunds in straw, the figures obtained from the averages of previous years being 4.37 and 7.57 respectively.

25. The cost of revenue establishment of the year was Rs. 43,161. The following statement shows the details of the year under review with those of the three previous years:—

	1888-89.	1887-88.	1886-87.	1885-86.
	Rs.	Rs.	Rs.	Rs.
<i>Establishment under Collector.</i>				
Superior officers and permanent and temporary establishment, including travelling allowance ...	31,389	28,749	26,007	24,028
Contingencies ...	2,889	2,218	2,625	1,948
Headmen's fees ...	1,680	2,208	1,209	1,229
<i>Establishment under Executive Engineer.</i>				
Permanent and temporary establishment ...	3,052	2,964	2,942	2,854
Contingencies ...	...	...	...	...
Water-regulation establishment ...	4,151	4,161	4,222	4,245
Total ...	43,161	40,300	37,905	34,304
Collections of water-rates and miscellaneous revenue by the Canal Revenue Department ...	1,60,328	1,46,039	1,05,775	1,16,940
Percentage ...	26.9	27.6	34.98	29.3

26. The management of the navigation of the canals and the collection of the revenue from this source is in the hands of the engineering staff. The

receipts, which are tabulated in statistical table ID, include tolls collected on boats and rafts using the canals, and the earnings of the transport service maintained by Government between Bhuddruck on the High Level Canal and Cuttack, a distance of 74 miles. The collections from tolls and transport service for the last ten years are shown below :—

			Tolls.	Transport service.	Total.
			Rs.	Rs.	Rs.
1879-80	...	...	62,389	35,686	98,075
1880-81	...	...	41,297	30,105	71,402
1881-82	...	...	53,219	29,987	83,206
1882-83	...	...	66,736	41,737	1,08,473
1883-84	...	...	61,602	48,550	1,10,152
1884-85	...	...	52,784	27,018	79,802
1885-86	...	...	64,093	19,919	84,012
1886-87	...	...	58,664	8,384	67,048
1887-88	...	...	66,628	4,376	71,004
1888-89	...	...	69,830	8,078	77,908

The cost of the establishment employed in collecting tolls during the year was Rs. 9,474, or Rs. 319 in excess of the previous year, due partly to the opening of the Jajepore Canal for traffic in August 1888, on which Rs. 156 was incurred, and partly to the Toll Collector at the Jumboo lock of the Kendrapara Canal having been employed there for a complete year instead of only for a portion of a year, as was the case in 1887-88.

27. The following statement compares the traffic (excluding the transport service) of all the canals in Orissa during the year under review with that of the previous year :—

CANALS.	Miles open.	Tollage on boats and rafts.		Number of boats plying cargo and passengers.		Tonnage of cargo and passenger boats.		Value of cargo and rafts.		Tollage per mile of canal.	
		1888-89.		1887-88.		1888-89.		1887-88.		1888-89.	
		No.	Rs.	No.	Rs.	Tons.	Tons.	Rs.	Rs.	Rs.	Rs.
Taldandah and Machgong Canals	31	4,510	6,267	996	1,430	25,289	44,566	1,02,110	98,605	139'0	202'1
Kendraparah and Gohri Canals (including extension)	75	53,786	46,659	5,109	5,611	81,677	81,718	31,18,950	36,11,925	717'1	622'1
High Level Canal, Range I	33	6,642	8,306	2,958	2,975	22,060	24,118	6,28,530	8,16,700	201'3	251'7
Ditto, ditto II	12½	3,302	4,085	1,542	1,995	16,732½	17,378	3,95,852	3,71,492	271'4	320'8
Ditto, ditto III	19	1,601	1,311	785	673	7,59½	6,216	1,30,472	1,27,511	84'3	69'0
Jajepore Canal*	6½	99	...	193	...	534	...	24,003	...	18'2	...
Total	177	69,830	66,628	11,475	12,084	153,674	175,996	45,99,937	50,32,493	394'5	520'7

* This canal was opened to traffic on the 11th August 1888.

This return only takes count of laden boats, of which there is a decrease both in number and tonnage. Of empty boats, on which reduced tollage rates are charged, the number which made voyages is 1,473 more than last year. The gross receipts from tollage are accordingly greater by Rs. 3,202, the total number of boats by 864, and the total tonnage by 30,267 tons. There is a decrease in rafts. Moreover, as the receipts from Government traffic have declined by Rs. 3,183, or 36 per cent., in consequence of the completion of the public works for which materials were boated in the previous year, the general traffic by private boats on the whole shows improvement, for though the actual weight of cargo, as exhibited in statistical table IID, appears to have slightly declined, the data on which that table is based cannot be depended on for accuracy. The classes of goods which show increases are grain, piece-goods, and building materials, while metals and salt have declined.

The number of passengers carried has increased by 10,015, being 17·21 per cent. in excess of the number who travelled in the year previous.

The fluctuations on the various canals are considerable. The increase on the Kendraparah Canal is larger by 7,319 than the decrease which occurred in 1887-88, so that the passenger traffic on this canal appears to have completely recovered from the temporary depression ascribed to the loss of the two ocean passenger steamers running between Calcutta and Chandbali; but the passenger traffic of the High Level Canal although increasing has not yet recovered itself. On the Taldandah Canal there is a still greater decrease than there was last year due to the same cause apparently, viz., that the passengers are not carried the short distance from the head of the canal at Jobra to the canal bridge situated on the crossing of the Pilgrim road.

28. The transport service maintained by Government between Bhuddruck and Cuttack was worked at a loss of Rs. 4,585 as against a loss of Rs. 5,712 in 1887-88. The number of passengers and the weight of goods carried were about double what were carried in 1887-88, but the line was worked at an increased cost of Rs. 3,383, steamers instead of accommodation boats being employed.

TRANSPORT
SERVICE.

29. The miscellaneous receipts during the year under review are compared by sub-heads with those of the previous year in the following statement:—

MISCELLANEOUS
RECEIPTS.

SOURCE OF REVENUE.	YEAR IN WHICH RECEIVED.		DIFFERENCE.	
	1888-89.	1887-88.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Plantations ...	1,450	1,131	319	...
Rent of lands ...	5,857	5,678	179	...
Canal produce ...	895	377	518	...
Rents of buildings ...	4,855	5,000	...	145
Sale of old materials ...	31	...	31	...
Fisheries ...	877	768	109	...
Sale of water ...	41	96	...	55
Miscellaneous ...	236	1,121	...	885
Total ...	14,242	14,171	1,156	1,085

30. The revenue receipts and working expenses of the Orissa canals for the last ten years are shown in the following statement:—

FINANCIAL
RESULTS.

PARTICULARS.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Water-rates ...	1,57,747	1,78,047	1,34,290	1,80,325	1,11,856	51,245	1,06,842	96,076	1,37,869	1,51,365
Navigation ...	98,075	71,402	83,206	1,08,473	1,10,152	79,802	84,012	67,048	71,004	77,908
Miscellaneous ...	23,305	20,329	15,655	31,212	15,800	12,538	16,406	15,587	14,171	14,242
Total ...	2,79,127	2,69,778	2,33,151	3,20,010	2,37,808	1,43,585	2,07,359	1,79,611	2,23,044	2,43,515
Less—Refunds of revenue ...	512	777	414	385	68	78	6	92	363	221
Net total receipts ...	2,78,615	2,69,001	2,32,737	3,19,625	2,37,800	1,43,507	2,07,344	1,79,519	2,22,679	2,43,294
WORKING EXPENSES.										
<i>Direct charges.</i>										
I.—Works, maintenance and repairs—										
Works (extensions and improvements) ...	298	...	...	...	...	...	...	...	...	...
Repairs ...	2,58,460	1,90,554	2,17,753	2,22,431	1,80,617	2,03,137	2,22,600	3,52,761	3,10,980	2,36,694
Establishment, including direction and accounts ...	51,918	45,896	50,108	51,100	43,600	50,958	51,199	81,117	98,155	70,201
Tools and plant ...	8,389	12,206	13,348	14,023	11,292	15,107	19,159	15,486	16,391	21,156
Direct expenditure in England ...	1,265	1,262	1,930	2,001	427	...	...	...	...	...
Total ...	3,20,330	2,58,978	2,83,139	2,90,575	2,44,936	2,69,292	2,93,048	4,49,564	4,25,524	3,28,051
II.—Revenue management—										
Irrigation establishment ...	38,794	38,812	37,022	37,002	33,432	33,999	34,304	37,005	40,500	43,161
Navigation establishment ...	8,153	7,501	8,035	13,578	14,081	12,398	15,219	15,471	15,123	15,734
Total ...	46,947	46,313	45,107	50,580	48,113	46,397	49,523	52,476	55,623	58,895
Total direct charges ...	3,67,277	3,05,291	3,28,246	3,41,155	2,93,049	3,15,689	3,42,571	5,01,840	4,80,940	3,86,946
<i>Indirect charges.*</i>										
Capitalized abatement of land revenue ...	...	...	...	...	...	...	...	...	...	...
Leave and pension allowances ...	17,047	15,889	16,407	15,741	12,840	13,629	14,101	18,703	21,501	18,073
Total indirect charges ...	17,047	15,889	16,407	15,741	12,840	13,629	14,101	18,703	21,501	18,073
Total working expenses ...	3,84,324	3,21,180	3,44,653	3,56,896	3,05,889	3,29,288	3,56,672	5,20,543	5,02,441	4,05,019
Net revenue (deficit) ...	1,05,639	62,179	1,21,916	35,271	68,089	1,85,781	1,49,328	3,41,024	2,79,771	1,61,725

* Indirect charges are now, by the suggestion of the Government of India, included in this statement of financial results.

It will be noticed that the deficit which was so great in the years 1886-87 and 1887-88 has now been reduced to one comparable with the years 1884-85 and 1885-86, owing chiefly to the absence of expenditure on account of the breaches in the Mahanadi weir, but also to an improvement in the receipts. If the earnings of the two years 1887-88 and 1888-89, be compared, the deficit of Rs. 2,45,842 is found to be reduced to Rs. 70,282; but it must be remembered that, in addition to the causes given above, in the former year the assessments did not include amounts not legally due until after the close of the year, whilst such are included in the year under review.

MAINTENANCE.

31. The outlay on maintenance, exclusive of that on the transport service which amounted to Rs. 6,403, during the year under review and the two preceding years is distributed under the sub-heads as follows:—

				1888-89.	1887-88.	1886-87.
				Rs.	Rs.	Rs.
Head works	...	...	...	71,168	1,94,272	2,34,500
Main canals	...	...	...	1,11,712	76,219	83,735
Distributaries	...	...	...	31,451	25,594	21,458
Drainage and protective works	..	...	...	15,960	10,778	6,690
Total	...	...	...	2,30,291	3,06,863	3,46,383

HEAD WORKS.

Out of a total expenditure of Rs. 71,168 on head works, Rs. 62,796 represents the cost of maintaining the weirs, divided as follows:—

NAME OF WEIR.		Length.	EXPENDITURE.		RATE PER RUNNING FOOT.	
			1888-89.	1887-88.	1886-89.	1887-88.
		Feet.	Rs.	Rs.	Rs.	Rs.
Naraje	...	3,833	10,140	26,106	2.64	6.81
Mahanadi	...	6,349	26,539	1,32,941	4.18	20.93
Beropa	...	1,980	5,573	5,015	2.81	2.53
Brahmini	...	4,000	7,471	7,692	1.86	1.92
Pattia	...	783	5,698	6,526	7.27	8.34
Byturni	...	1,026	1,440	977	1.40	0.95
Burrah	...	526	5,935	7,165	11.28	13.62
Total of all weirs	...	18,497	62,796	1,86,432	3.39	10.08

As the rebuilding of the portions of the Naraje and Mahanadi weirs which had been carried away in 1886 was completed in 1887-88, the repairs necessary in 1888-89 were again of a normal character. A portion, however, of the apron of the Mahanadi weir was again injured by floods, involving a special outlay of Rs. 7,658 on its reconstruction.

The maintenance of the remaining head works, including river protective works, embankments and buildings, amounted to Rs. 8,372. Of these the buildings, on which quadrennial repairs were carried out, show an increase of Rs. 1,665.

MAIN AND BRANCH CANALS.

32. The following statement gives the cost of maintenance of each main and branch canal separately for four years:—

CANALS.		1888-89.		1887-88.		1886-87.		1885-86.	
		Cost.	Per mile.	Cost.	Per mile.	Cost.	Per mile.	Cost.	Per mile.
	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kendrapara	39	39,370	1,009	17,539	445	21,064	538	30,789	789
Ditto extension	15	2,611	174	2,385	159	2,741	182	2,998	200
Gobr	15	6,434	429	4,500	300	3,975	265	7,806	520
Do. extension	6	4,735	787	4,047	674	3,599	600	9,101	1,517
Pattamondoo	47	8,769	186	11,347	241	14,622	309	18,629	396
Taldundah	27	17,077	630	8,995	329	9,071	369	14,213	526
Machgong	19	8,390	440	4,163	219	4,041	212	2,901	152
High Level, Range I	33	13,771	417	12,230	370	12,862	389	15,862	481
Ditto, do. II	124	4,315	345	4,420	355	5,305	421	6,053	484
Ditto, do. III	19	6,330	333	6,805	358	6,215	327	10,021	529
Total	284	1,11,712	480	76,219	323	83,735	300	1,10,001	514

The average mileage rate of maintenance, therefore, shows an increase of more than 46 per cent., in which nearly all the canals have shared. On the Kendraparah canal, where the increase is greatest, gate-renewals were carried out on three locks, and both on this and other canals navigated by steamers, a great deal of earthwork was carried out in order to repair the erosion of the banks which were in many places protected by bamboo revetments. On the canals generally there has been a great increase in the amount of earthwork carried out, as well as in silt clearance and the removal of weeds. The quantity of silt cleared by hand was 9,904,436 cubic feet, and the cost Rs. 26,217, giving an average rate of Rs. 2.65 per thousand, while in the previous year only 3,586,859 cubic feet were cleared at an average rate of Rs. 2.77. The amount of silt dredged was 304,077 cubic feet, and the cost Rs. 2,751, an average rate of Rs. 9 per thousand cubic feet. The cost of repairs to the canals, taking them all together, is far higher than in the two previous years, but is still below the cost in the somewhat abnormal year 1885-86; and an examination of the above figures and of those given in greater detail in the Superintending Engineer's report appears to show that a very large proportion of the increased cost as compared with the previous year is due to the effects of steamer navigation on the canal banks, or to outlay on navigation works, or in meeting the requirements of navigation. This remark applies with more or less force to all the navigable channels of the Kanchraparah system. It may be that the lower expenditure in the two previous years was due to a comparative neglect of the necessary repairs, but there appears to be grave reason for doubting whether these narrow channels are suitable to a heavy steamer traffic. The repairs during the year under review have certainly been effected with care; and should the experiment of planting the screw-pines along the water's edge have the anticipated result, the money will have been well spent, and a great saving in earthwork generally may be anticipated. But the experiment has not been tested sufficiently as yet, and should it not prove a success, either an entirely new method must be adopted for protecting the banks or little or no diminution in cost can be looked for.

The damage caused by steamer traffic cannot, however, be given as an explanation of the high rate on the navigable channel of the Taldandah canal nor on the Machgoing canal which has not yet been made navigable; and yet on both these the expenditure, as will be seen from the statement above, is double that of the previous year. In both cases the increased expenditure is ascribed to the larger amount of dressing and turfing required on the slopes and to increased charges for silt and weed clearing. The conclusion apparently to be drawn is that either these necessary repairs have been neglected in past years, or that a somewhat excessive zeal has been exhibited in "polishing." No special explanation is given for an abnormal collection of silt or an abnormal wear and tear to the slopes.

Of course some of the increased charges are beyond control, such, for instance, as the damage done to buildings by the cyclone of September 1888.

33. The cost per mile for repairs of distributaries for the last four years is shown below:—

	Miles.	1888-89.		1887-88.		1886-87.		1885-86.	
		Cost.	Per mile.	Cost.	Per mile.	Cost.	Per mile.	Cost.	Per mile.
DISTRIBUTARIES.	No.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Kendrapara Canal System	333½	15,630	46.53	15,510	46.48	11,073	33.17	13,156	39
Taldanda Canal	71½	2,969	41.25	2,942	41.35	2,232	31.21	2,297	32
Machgong Canal	122½	5,725	46.83	5,182	42.38	4,071	33.30	3,743	30
High Level Canal, Range I	117½	9,946	78.85	4,660	39.74	4,081	34.80	5,325	45
Total	644½	31,451	48.77	28,594	39.69	21,457	35.27	24,521	38

On the High Level Canal, Range I, the quantity of earthwork and turfing required for the repairs of the distributary banks was much larger than usual—

an increase in which all the other canals share, though in a less degree. It is possible that this was due to the abnormal heavy rainfall of August, but this is not stated.

DRAINAGE AND
PROTECTIVE
WORKS.

34. There was also an increase during the year in the cost of drainage and protective works, amounting in all to Rs. 5,182; and occurring on the Kendrapara, Machgong and Gobri Extension Canals, and upon Ranges II and III of the High Level Canal. Besides greater outlay on clearing the drainage channels of silt, expenditure of a special character took place on the repairs of a large stone groyne above the Brahmini weir, and on the slopes and crests of the protective embankments.

NECESSITY FOR
CAREFUL CONTROL
OF THE EXPENDI-
TURE.

35. As mentioned above, the increased expenditure both on canals and distributaries may have been due to a certain extent to natural causes, heavy rainfall, cyclone, &c., but a careful examination of the figures appears to show a distinct tendency to increased expenditure of a nature which may be guarded against and controlled. There is a happy mean between allowing works to fall into disrepair and a lavish expenditure in aiming at excessive trimness of banks and slopes, and there appears to be reason for doubting whether this happy mean has yet been found on the Orissa Canals, and the Superintending Engineer's earnest attention must be directed to this matter, as the only hope of ever making these canals pay even their working expenses appears to be in reducing expenditure as well as increasing receipts.

FLOODS.

36. The floods in the Mahanadi and Byturni rivers were moderate ones, but the flood in the Brahmini was slightly higher than the flood of 1879, although it was lower than the high flood of 1881 below the weir at Janapore. The highest flood in the Mahanadi river rose to 85.80 on the gauge at Naraje, as compared with 87.70, which was the highest reading obtained during the floods of the previous year, and with 92.10, which was the level reached at the same place by the great flood of 1872. The highest flood of the year in the Byturni river stood at a height of 5.40 feet above the reading of the flood of 1887 below the weir at Acquapadda.

MIDNAPORE CANAL.

CAPITAL ACCOUNT

37. The Capital, Interest and Revenue Accounts of this Canal are given below:—

1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.				Outlay during 1888-89.	Outlay to end of 1888-89.
DIRECT CHARGES.				Rs.	Rs.
I.—Works	..	...	...	(—)11	53,42,663
II.—Establishment	...	...	...	1	19,22,355
III.—Tools and plant	...	...	...	(—)429	8,93,489
IV.—Suspense accounts	...	...	...	3,133	43,496
Loss by exchange	...	...	...	.....	94,800
Total				2,694	82,96,803
V.—Less receipts on Capital account	...	..	..	29	30,793
Net total direct charges				2,665	82,66,010
INDIRECT CHARGES.					
Capitalization of abatement of land revenue	...	..	..	53	141
Leave and pension allowances	...	..	..	.....	1,83,570
Total indirect charges				53	1,83,711

2.—INTEREST ACCOUNT.

INTEREST.

			Rs.
Interest charges to end of 1887-88	...	...	50,87,143
Ditto for 1888-89	...	...	3,30,587
Total	...	...	54,17,730

3.—REVENUE ACCOUNT (Actuals).

REVENUE ACCOUNT.

	EXPENDITURE.			RECEIPTS.	
	During 1888-89.	To end of 1888-89.		During 1888-89.	To end of 1888-89.
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
<i>I.—Maintenance and repairs.</i>					
Works (extensions and improvements) ...	...	40,738	Water-rates ...	91,016	15,43,174
Repairs ...	1,06,139	19,89,766	Navigation ...	1,49,480	16,78,434
Compensation ...	...	30	Miscellaneous ...	11,299	1,93,535
Establishment, including direction and accounts	36,111	4,82,981	Total ...	2,51,795	34,15,143
Tools and plant ...	24,335	3,01,424	Less—Refunds of revenue ...	285	1,122
Total ...	1,66,585	28,14,939	Net total receipts ...	2,51,510	34,14,021
<i>II.—Revenue management.</i>					
Irrigation establishment	25,927	3,60,442			
Navigation ditto ...	7,550	1,34,738			
Total ...	33,477	4,95,180			
Total direct charges ...	2,00,062	33,10,119			
<i>INDIRECT CHARGES.*</i>					
Capitalized abatement of land revenue ...	...	...	
Leave and pension allowances ...	9,742	1,53,479			
Total indirect charges ...	9,742	1,53,479			
Total working expenses	2,09,804	34,63,598			
Profit ...	41,706	(—)49,577			
Total ...	2,51,510	34,14,021			

* These are now shown under the suggestion of the Government of India.

The capital outlay during the year was Rs. 2,665, and to the end of the year Rs. 82,66,010 against Rs. 83,16,768, the amount of the estimate sanctioned by the Secretary of State.

The period allowed for the completion of the estimates sanctioned by the Secretary of State for the Midnapore canal expired on the 31st March 1888. At that date, however, certain works, which were regarded as falling within the scope of the original project, and therefore as properly chargeable to capital, still remained to be carried out. In these circumstances, the Government of India decided that no further extension of time for the completion of the project, as such, should be allowed, but, following the procedure laid down in Public Works Code, volume II, Chapter XV, paragraph 156, directed that a schedule of the works chargeable against capital, which it might be found necessary to carry out, should be annually submitted for sanction, and application for funds made in accordance with the provisions of the paragraph quoted.

EARNINGS.

38. The revenue account calculated on "earnings" of the year and expenditure is given below :—

EXPENDITURE.	Amount.	Earnings	Amount.
DIRECT CHARGES.	Rs.		Rs.
<i>I.—Maintenance and repairs.</i>			
Works (extensions and improvements)	...	Water-rates ...	1,31,433
Repairs ...	1,06,139	Navigation ...	1,46,760
Compensation ...	...	Miscellaneous ...	14,019
Establishment, including direction and accounts ...	36,111		
Tools and plant ...	24,335		
Total ...	1,66,585	Total ...	2,92,212
<i>II.—Revenue management.</i>			
Irrigation establishment ...	25,927		
Navigation ditto ...	7,550		
Total ...	33,477	Less—Refunds of revenue	285
Total direct charges ...	2,00,062	Net total receipts ...	2,91,927
INDIRECT CHARGES ...	9,742		
Total working expenses ...	2,09,804		
Profit ...	82,123		
Total ...	2,91,927		

Under the rules of the Midnapore canal, water is only supplied, as a general rule, from June to November, and the ordinary water-rates fall due on the 1st February, or within the limits of the year in which the water is supplied. Under ordinary circumstances, therefore, the amount of the 'earnings' of any year should coincide with the assessments of the year. In practice, however, a small portion of the assessments do not fall due till after the close of the year to which they belong; for instance, in cases of boro rice irrigation, where the whole of the assessment cannot well be completed before the close of the official year, or of lands illicitly irrigated, where the justice of the demand is disputed by the cultivator, and the assessment is consequently delayed. It may be stated that, of the sum of Rs. 1,31,433 shown above as the amount of water-rates earned during 1888-89, Rs. 1,18,243 are assessments completed within the year, Rs. 11,900 are assessments completed after the close of the year, while Rs. 1,290 is the estimated amount of the assessments which for various reasons it has not yet been possible to complete.

RAINFALL.

39. The following table shows the rainfall for the year 1888-89 and the four previous years at five registering stations in the Midnapore district:—

STATIONS.	1888-89.	1887-88.	1886-87.	1885-86.	1884-85.	Average of 19 years previous to 1888-89.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Midnapore ...	68.00	55.38	49.39	76.20	57.19	55.97
Panchkoorah ...	59.47	50.21	50.56	86.03	45.84	56.27
Luchmapore ...	61.93	47.00	56.35	81.84	Not available.	
Mowah ...	60.14	49.76	55.93	81.07	Ditto.	
Contai ...	59.24	54.41	48.24	76.45	77.30	68.20

Of these stations, the first four only are within or contiguous to the area commanded by the Midnapore canal. The rainfall of the year, though up to

the average, was very unequally distributed, as an examination of the quantity recorded in each month from June to November will show:—

					Inches.
June	1888	...	...	...	3.67
July	"	...	...	...	18.57
August	"	...	...	...	21.16
September	"	...	...	...	6.58
October	"	...	...	...	1.08
November	"	...	...	...	0.29

The rainfall here shown for each month is the average of the quantities recorded at the four stations which lie within the irrigated tract.

40. The area of all crops leased and irrigated is returned by the Deputy Revenue Superintendent in charge of the assessments at 69,777 acres. Of this area 62,374 acres were kharif lands leased for five years; while of 4,034 acres of kharif leased for one year, 122 acres were voluntarily leased, and 3,912 acres assessed on the ground of having been surreptitiously irrigated. Lastly, though the right of Government to use the water of the Cossye during the rabi months is restricted, arrangements, such as have been common of recent years, were made for the irrigation of a limited area of boro rice, and 3,369 acres were so irrigated under annual leases.

LEASES AND
IRRIGATION.

The Superintending Engineer returns the area leased and irrigated at 65,865 acres, thus differing from the return of the Deputy Revenue Superintendent by 3,912 acres. The explanation appears to be that the latter area was illicitly irrigated, and the assessment was not completed until after the close of the year. For this reason it was not included in the final month's irrigation returns of 1888-89; and the Superintending Engineer appears to have made a mistake in saying in his report that it was included.

The five-year leases in force during 1887-88 amounted to 66,628 acres, of which 32,875 acres expired on the 31st March 1888. During 1888-89 the renewals were 28,620 acres. The area of the leases which lapsed on the 31st March 1889 was 11,377 acres, an error having been made in the figures given in last year's note.

Of 69,777 acres assessed, 60,263 acres were irrigated from the Midnapore weir, 8,914 from the Panchkoerah weir, and 600 from the tidal reaches. Similar information for three years is supplied in the following table, where the percentage which the area irrigated in each year bears to that commanded and provided with distributaries is shown:—

PARTICULARS.	Total provided for in the revised estimate.	Midnapore Weir, Ranges IV & V.			Panchkoerah Weir, Range III and Tidal reaches, Ranges I and II.			Total.		
		1886-89.	1887-88.	1888-89.	1886-89.	1887-88.	1888-89.	1886-89.	1887-88.	1888-89.
Length of distributaries and branch canals ... Miles.	229.12	229.94	229.94	229.94	53.25	53.25	53.25	283.19	283.19	283.19
Area provided with distributaries ... Acres.	125,000	100,000	100,000	100,000	25,000	25,000	25,000	125,000	125,000	125,000
Area irrigated ...	60,263	60,302	62,225	62,225	9,514	6,502	7,537	69,777	65,804	69,762
Percentage of area irrigated to that commanded ...	...	60.26	62.22	62.22	37.9	26.01	30.15	55.82	52.64	55.81

In his summary of the irrigation season, the Superintending Engineer quotes as follows from the Executive Engineer's report:—

"The improvement on the previous year's irrigation, though slight, is still satisfactory, when the adverse circumstances under which we were placed last year is taken into consideration. The rains as stated before began to fall from September and ceased altogether in October. The demand for irrigation became general; but with the failure of the rains the discharge of the river Cossye began to diminish until in October only 800 or 900 cubic feet were available to irrigate over 65,000 acres. In November, when the crops were greatly in need of irrigation, the river discharges went down to 300 cubic feet. With careful regulation, this was made to irrigate the area leased, and it is a matter for congratulation that no general failure in the irrigated rice crops occurred on any distributary."

The conditions here described, a demand becoming more intense in proportion as the supply failed, are such as to severely test the administration of any canal; and the dual system of administration in force at Midnapore, where the negotiations with those who require the water on the one hand and the actual control of the supply on the other, rest with distinct and independent officers,

would appear to be inherently weak when subjected to such a strain. As the Collector remarks with much force:—"There was a great rush for water in September and October, and a large number of leases were executed on the mere chance of getting it." And, to quote the words of the Deputy Revenue Superintendent, "this" (the Revenue) "Department was found fault with for taking more leases than the Engineer officers could supply water with." The expediency of a change of system, under which leases should be controlled by the Engineers who already control the supply, has been strongly urged by the Revenue officers, supported by the Engineers. Such a system has, however, been already in force on the Sone canals, where its efficiency has been severely questioned, and has been the subject of prolonged and exhaustive enquiries, the report on which is now about to be submitted to the Government of India. Until a final decision has been pronounced on that report, it would be obviously premature to amend the Midnapore system after the Sone pattern.

In connection with the remarks in last year's note (paragraph 35) on this same subject, the following remarks by the Superintending Engineer are worthy of consideration when any new system is proposed to be introduced:—

"The matter of making the leases of all land irrigable from the same outlet or same distributary terminable on the same date was under consideration, and it is probable that if this system is adopted, and the rate successively year by year increased for subsequent leases entered into on the same distributary, that irrigation would become more general.

"At present the disinclination to renew until forced by absolute failure of rainfall leads largely to surreptitious irrigation, which must be very largely in excess of that reported, at the expense in a dry season of those who have leased honestly. Penalty rates are not enforced, and the dishonest irrigator finds himself admitted to a lease for the remaining years of a five-years' lease or a five-years' lease as the case may be on the same yearly rate as a lessee for the whole term, or at any rate on no worse terms than the applicant for a lease.

"This is the system on which irrigation has been worked for years in Midnapore, and a greater premium on declining to enter into leases till the last moment could not be afforded. The fact is very well appreciated by those who have entered into leases, and it is no matter for surprise if they fall into similar ways as soon as their leases expire. By insuring their crops for five years, they get no corresponding advantage.

"Were the proposed system adopted, it might be possible to apportion water more fairly in years of scanty rainfall by first attending to the wants of the lessees on the oldest leased distributary."

COMPLAINTS.

41. The number of irrigation complaints was 1,731, of which 1,647 were filed during the year and 84 pending from the previous year. 1,218 of the complaints were objections to certificates issued under the Public Demands Recovery Act, most of them in cases of surreptitious irrigation, while in other cases the applicants alleged either that no water was supplied or that the water-rates were excessive. The remaining complaints appear to have been of an ordinary character. Of 1,492 claims disposed of, 216 were decided entirely in favour of the petitioners, while the remainder appear to have been either rejected or in some cases compromised by the applicants entering into leases. The number left pending at the close of the year was 239.

DUTY OF WATER.

42. The kharif duty calculated on the discharge utilized was 164 acres per cubic foot for the area under Midnapore weir and 184 acres for that under Panchkoora weir. The former figure, which gives a much higher duty than what was obtained last year, must be received with caution, as the calculations of the discharges on which it is based are not trustworthy.

ASSESSMENTS AND COLLECTIONS.

43. The following comparative statement shows the balances, assessments, and recoveries of water-rates on the Midnapore canal since the year 1884-85:—

YEAR.	Amount outstanding at commencement of year.	Amount falling due during the year.	Total for recovery.	Cash realization.	Remitted or written off.	Balance at the end of the year.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1884-85	1,44,691	1,22,321	2,67,012	1,16,807	38,993	1,11,212
1885-86	1,11,212	1,10,888	2,22,080	1,08,709	43,399	69,972
1886-87	69,972	1,06,750	1,76,722	1,08,834	17,139	50,749
1887-88	50,749	1,02,532	1,53,281	90,837	5,951	56,493
1888-89	56,493	1,23,337	1,79,830	91,016	4,441	84,373

Thus, while the whole amount recoverable, including arrears, was Rs. 26,549 more than in 1887-88, the collections were only Rs. 179 more; the percentage of collections being 50.6 as against 50.3.

Out of the sum of Rs. 1,23,337 shown in the above table as falling due within the year, Rs. 1,18,243 were water-rates of the year itself. On this the collections were Rs. 39,863 and the remission Rs. 9, the total adjustments 33·7 per cent.

The amount recoverable on account of previous years was Rs. 61,586, of which Rs. 56,493 were arrears, properly so called, while Rs. 5,093 were water-rates earned in previous years, but not recoverable till 1888-89. The amount adjusted was Rs. 55,185, or 89·02 per cent.

This large reduction of arrears and the smallness of the sum (Rs. 4,041) which it was found necessary to treat as irrecoverable are satisfactory features in the returns of the Deputy Revenue Superintendent. A different view must be taken of the collection of the current demand, from which a balance of Rs. 78,372, or 66·3 per cent., is left unsettled. In partial explanation, it is stated that Rs. 39,302 had of necessity to stand over; of these, Rs. 5,053 were water-rates on boro rice, which is only reaped at the end of the year, Rs. 19,338 were demands contested by the ryots which could not be collected till the objections were heard and settled, and Rs. 14,911 were demands which it will probably be necessary to strike out, as good reasons for remission, in some cases insufficiency of supply, in others loss of crop from breaches in the Cossye embankment, are known to exist.

44. In miscellaneous revenue, the demand was Rs. 18,870, of which Rs. 5,503 were for arrears. The collections were Rs. 12,287 and the balance Rs. 6,035. The miscellaneous receipts collected by the Executive Engineer amounted to Rs. 1,731. MISCELLANEOUS RECEIPTS.

45. The number of certificates undisposed of at the end of the previous year was 5,310. In addition, 11,201 new certificates were filed, 5,017 being for surreptitious irrigation and 6,184 for satisfaction of demands under kabulyats: 9,326 were disposed of—in 3,847 cases by the realization of the demand, while the other 5,478 cases were struck off; 7,185 cases, of which only 661 were more than six months' old, were left unsettled at the end of the year, and with these good progress has since been made. It is stated that no certificates were issued for the realisation of the current demand. CERTIFICATES.

46. The cost of revenue establishment was Rs. 24,728 against Rs. 21,600 of the year preceding. The percentage of cost on the total collections is 23·93 against 20·34. The increased expenditure is chiefly accounted for by the payment of Rs. 2,135 as headmen's fees, on which nothing was spent in the previous year. The Commissioner remarks that in the report of the Deputy Superintendent nothing is said of the effect produced by the payment of commission to headmen. The Collector says the same, and notes further that, on the other hand, an attempt has been made to reduce expenditure by eliminating one collection with and making over its work to the others; but as this was done on the assumption that the leased area would not extend beyond its then existing limit, the success of the experiment has yet to be assured. Judging by the results the experiments have not so far answered since the collections have fallen off, and the percentage of cost of collection on the demand has increased. REVENUE ESTABLISHMENT.

47. The receipts under navigation increased from Rs. 1,26,574 in 1887-88 to Rs. 1,46,760 in 1888-89. The usual particulars regarding the traffic carried during the last ten years in vessels other than those of the Calcutta Steam Navigation Company are given below:— NAVIGATION AND TRANSPORT SERVICE.

DESCRIPTION.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
Miles open ... No.	53	53	53	53	53	53	53	53	53	53
Toll collections ... Rs.	91,861	77,143	98,000	1,00,157	1,08,931	1,19,797	1,25,331	1,01,054	1,08,460	(a) 1,25,339
Rate of toll per mile ..	1,733	1,455	1,850	2,002	2,055	2,260	2,364	1,906	2,040	2,365
Number of boats, including empty boats ... No.	52,044	45,461	51,403	62,554	62,069	47,653	43,240	45,790	49,028	54,214
Tonnage of boats ... Tons	320,927	292,452	332,325	360,973	382,079	412,379	372,608	337,440	400,800	470,806
Passengers carried No.	180,294	166,238	204,029	181,231	170,745	...	...	208,582	160,567	(b) 167,259
Estimated value of cargo, including rafts ... Rs.	1,50,41,406	1,43,15,008	1,47,79,798	1,60,43,032	1,70,53,406	1,57,55,997	1,27,22,175	97,25,587	1,18,44,844	1,31,70,26

(a) Exclusive of Rs. 21,428 tolls paid by the Calcutta Steam Navigation Company.

(b) By private boats, 81,940, and by the Calcutta Steam Navigation Company's steamer, 85,319.

The tollage receipts both from boats and steamers continue to advance, and are now higher than in any previous year, the increase being distributed over the whole year except for the month of August, when navigation was stopped owing to the excessive accumulation of silt at the Panchkura works. The Superintending Engineer shows that the export traffic in rice and paddy is steadily on the increase in the districts of Midnapore and Hooghly, and appears to be stimulated by a bad harvest, such as that of 1888-89, when the superiority of irrigated over unirrigated crops is more marked. Other goods of which greater quantities were carried are raw cotton, salt, piece-goods, building materials, fuel, timber and miscellaneous.

The Calcutta Steam Navigation Company continue to maintain a double daily service of steamers on the Midnapore canal. The discomfort of these vessels is made the subject of a complaint by the Executive Engineer. The tolls paid by the Company rose from Rs. 18,114 to Rs. 21,428.

48. The following statement shows the receipts on revenue account and working expenses of the Midnapore canal since the year 1879-80:—

FINANCIAL RESULTS.

PARTICULARS.	1879-80.	1880-81.	1881-82.	1-82-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
<i>Receipts.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Water-rates ...	1,50,140	1,12,909	1,18,388	1,04,060	1,31,090	1,16,807	1,08,709	1,08,834	90,837	91,016
Navigation ...	1,05,518	93,099	1,29,706	1,46,922	1,20,580	1,28,747	1,37,578	1,09,683	1,16,574	1,46,760
Miscellaneous ...	11,567	16,407	10,780	17,628	12,996	12,401	16,197	15,638	16,907	14,019
Total ...	2,67,225	2,16,406	2,50,074	2,68,010	2,64,576	2,57,955	2,62,484	2,34,185	2,34,378	2,51,795
Less—Refunds of revenue ...	...	...	...	...	44	112	...	211	423	285
Net total receipts ...	2,67,225	2,16,406	2,50,074	2,68,010	2,64,532	2,57,843	2,62,484	2,33,974	2,33,955	2,51,510
<i>WORKING EXPENSES.</i>										
<i>DIRECT CHARGES.</i>										
<i>I.—Works, Maintenance and repairs.</i>										
Works and repairs ...	94,488	1,21,697	1,35,114	1,46,067	1,27,628	1,34,636	1,24,857	1,37,752	1,31,181	1,06,139
Compensation ...	...	...	...	...	30	...	...	...	...	...
Establishment, including direction and accounts ...	19,162	26,100	31,022	32,218	29,342	30,822	28,651	31,677	46,467	36,111
Tools and plant ...	17,636	17,975	30,448	31,334	31,229	26,591	25,952	25,003	31,409	24,335
Total ...	1,50,686	1,65,682	2,02,584	2,03,639	1,88,229	1,91,449	1,79,460	1,94,432	2,09,657	1,66,585
<i>II.—Revenue management.</i>										
Irrigation establishment ...	16,377	16,101	18,371	20,337	19,862	24,004	22,790	24,154	22,797	25,927
Navigation ditto ...	7,349	7,457	7,519	14,161	7,511	7,609	7,610	7,573	7,759	7,550
Total ...	23,717	23,558	25,890	34,438	27,373	31,613	30,400	31,729	30,556	33,477
Total direct charges ...	1,54,403	1,89,239	2,28,474	2,38,077	2,15,602	2,23,062	2,09,860	2,26,161	2,39,613	2,00,062
Indirect charges* ...	7,622	8,823	10,116	8,425	7,940	8,741	8,267	8,877	10,783	9,743
Total working expenses ...	1,62,025	1,98,062	2,38,590	2,46,502	2,23,542	2,31,803	2,18,127	2,35,038	2,50,396	2,09,804
Net revenue ...	85,200	18,423	11,484	21,508	40,990	26,040	44,357	(—) 1,064	(—) 16,471	41,706

* These are now shown under the suggestion of the Government of India. If allowance be made for the increase in the establishment charges under the new method, the year under review would compare favourably with any year since 1880-81 at any rate.

EXPENDITURE ON REPAIRS.

49. The actual cost of repairs during the year 1888-89 was less than that in the previous year, and is distributed by sub-heads as shown below:—

	1888-89.	1887-88.
	Rs.	Rs.
Head works, including buildings ...	13,903	11,667
Main canal and branches ...	65,216	89,238
Distributaries ...	22,464	20,687
Drainage and protective works ...	2,113	1,990
Steamers ...	2,443	7,599
Total ...	1,06,139	1,31,181

HEAD WORKS.

The expenditure on the Midnapore head works was Rs. 10,551 and on the Panchkooah head works Rs. 3,352. The expenditure on weirs was Rs. 2.70 per foot run of the Midnapore weir and Rs. 3.34 of the Panchkooah weir against Re. 1.48 and Rs. 5.30 respectively last year. The cost of clearing silt from the locks and lock entrances situated above the two weirs was considerable. A large sum also was expended in replacing the apron of the Midnapore weir and on the shutters on the Panchkooah weir sluices.

There is a decrease of Rs. 26,819 on the repairs of main canal and head works taken together, and an increase of Rs. 1,777 on those of distributaries. Mileage rates are worked out below:—

YEAR.	MAIN CANAL AND HEAD WORKS, &c.			DISTRIBUTARIES.		
	Length of canal, exclusive of river crossings.	Total cost of work.	Rate per mile.	Length of distributary channels.	Total cost of work.	Rate per mile.
	Miles.	Rs.	Rs.	Miles.	Rs.	Rs.
1881-82	48	1,03,910	2,164	277	11,854	43
1882-83	48	1,01,821	2,121	277	20,407	73
1883-84	48	1,06,425	2,216	277	21,195	76
1884-85	48	1,15,171	2,399	277	18,865	68
1885-86	48	1,10,350	2,299	277	14,424	52
1886-87	48	1,20,135	2,503	283	17,617	63
1887-88	48	1,10,404	2,301	283	20,687	74
1888-89	48	83,675	1,743	283	22,464	79

The mileage rate of the main canal is much lower than in previous years, economies having been chiefly effected in earthwork charges, which fell from Rs. 59,161 to Rs. 49,758, and in repairs of navigation works, which fell from Rs. 19,162 to Rs. 4,008. In earthwork 4,176,765 cubic feet of silt were cleared by dredgers and removed at a cost of Rs. 26,387, or at an average rate of 6.31 per thousand, which compares favourably with the rate of 7.63 obtained in the previous year, and 1,931,281 cubic feet were cleared by hand and excavators at an average rate of Rs. 5.32 per thousand, which is slightly higher than in 1887-88. In addition 1,755,000 cubic feet were cleared at an average rate of Rs. 8.12-6 per thousand from the first three reaches, which were closed for that purpose during April.

The cost of repairs to distributaries was Rs. 22,464 against Rs. 20,687 in the preceding year. The mileage rate for the year was Rs. 79 per mile, which is higher than that of former years; but it is explained that an expenditure of Rs. 8,039 for 4,493,278 cubic feet of earthwork had to be incurred in raising banks and clearing silt and in closing the breaches caused by the excessive floods of July and August. A certain amount of silt clearance and repairs to banks must always have to be done, whilst even if we exclude the whole sum, the balance falls at a rate of Rs. 51 per mile, which was about the rate in 1885-86, when it was Rs. 52 per mile. Since then the yearly rates have been Rs. 63, Rs. 74 and now Rs. 79, and there appears to be sufficient ground for a searching enquiry as to whether the expenditure under this head cannot be reduced, since even Rs. 51 per mile appears to be higher than the rate ought to be.

The expenditure on tools and plant amounted to Rs. 24,335 against Rs. 31,409 of the previous year, and was incurred principally on repairs to the dredging plant.

50. The highest flood in the Cossye river, the result of heavy rainfall following in cyclonic storm in the Bay, occurred on the 25th August, when the gauge reading above Midnapore weir was 88.80 and below it 87.50, against 92.30 and 91.55 respectively, the highest recorded in 1868. Several minor floods came down the river, which caused serious silt deposits both at Mohunpore and Panchkoora. Though very considerable damage by floods was caused to embankments both north and south of the canal by which irrigated crops are reported to have been destroyed, no damage occurred to the canal or works.

HIDGELLEE TIDAL CANAL.

51. On this canal, which is a major work, no capital expenditure was incurred during the year under report. The expediency, however, of incurring further expenditure on works designed for the most part to overcome the accumulations of silt, which at present interfere with the financial success of the canal, was indicated in the Chief Engineer's note of last year, and it was stated that estimates for remodelling the canal were then under the consideration of the Government of India. These estimates, amounting to Rs. 7,91,963, have now been sanctioned by the Secretary of State, and funds will be assigned as required for the completion of the improvements, with the condition, which has been

accepted by the Lieutenant-Governor, that the province shall accept financial responsibility for the work by agreeing to pay interest at the rate of 4 per cent. on all allotments made from Imperial revenues under this arrangement. The remodelling of the canal, therefore, as opposed to the original project, will be classified as a minor work.

CAPITAL ACCOUNTS. 52. The capital, interest, and revenue accounts of the Hidgellee Tidal Canal are given below :—

1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.		During 1888-89.	To end of 1888-89.
DIRECT CHARGES.		Rs.	Rs.
I.—Works	...	...	12,66,239
II.—Establishment...	...	...	4,49,790
III.—Tools and plant	...	...	57,585
IV.—Suspense accounts	...	...	...
Loss by exchange	...	...	22,790
Total	...	...	17,96,404
V.—Less—Receipts on capital account	...	...	915
Net total direct charges	...	...	17,95,489
INDIRECT CHARGES.			
Capitalization of abatement of land revenue	...	...	11,210
Leave and pension allowances	...	...	33,597
Total indirect charges	...	...	44,807

INTEREST ACCOUNT.

2.—INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1887-88	...	12,58,963
Ditto for 1888-89	...	71,820
Total	...	13,30,783

REVENUE ACCOUNT.

3.—REVENUE ACCOUNT—(Actuals).

	EXPENDITURE			RECEIPTS	
	During 1888-89.	To end of 1888-89.		During 1888-89.	To end of 1888-89.
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
I.—Works, maintenance and repairs.					
Works (extensions and improvements)	1,718	4,751	Water-rates	...	2,611
Maintenance and repairs	50,920	4,70,616	Navigation	53,921	8,08,635
Establishment, including direction and accounts	16,572	1,14,398	Miscellaneous	1,249	19,377
Tools and plant	2,868	24,471	Total	55,170	8,25,623
Total	72,078	6,14,236			
II.—Revenue management.			Less—Refunds of revenue	73	983
Navigation establishment	3,195	53,050	Net total receipts...	55,097	8,24,640
Total direct charges	75,273	6,67,286			
INDIRECT CHARGES.*					
Capitalized abatement of land revenue	...	...	
Leave and pension allowances	2,767	26,240			
Total indirect charges...	2,767	26,240			
Total working expenses	78,040	6,93,526			
Profit	(—)22,943	1,31,114			
Total	55,097	8,24,640			

*These are now shown under the suggestion of the Government of India.

53. The usual particulars regarding the traffic on the Hidgellee Tidal Canal since the year 1879-80 are given in the following statement:—

TRAFFIC.

PARTICULARS.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
Miles open ... No.	29	29	29	29	29	29	29	29	29	29
Toll collections ... Rs.	44,918	53,338	45,848	43,694	62,317	41,382	52,143	51,904	40,406	53,910
Rate of toll per mile	1548'49	1839'20	1581'00	1510'00	2148'00	1427'00	1798'03	1789'79	1393'31	1858'06
Number of boats ... No.	16,311	21,783	20,057	17,445	22,728	17,660	19,316	17,542	13,563	16,481
Tonnage of boats ... Tons.	120,021	152,781	133,020	132,884	196,764	145,424	163,535	149,747	124,903	163,035
Passengers carried ... No.	3,061	3,531	3,286	3,510	...	...	...	8,569	11,951	34,632
Estimated value of cargo, including rafts ... Rs.	25,86,031	23,34,731	21,19,855	23,83,244	35,42,029	30,06,852	32,74,061	31,48,826	26,13,351	33,01,123

The receipts from tolls during the year under review amounted to Rs. 53,910 against Rs. 40,406 for the previous year, thus showing an increase of Rs. 13,504. The previous year was a year of partial closure of canal for silt clearance.

54. The only receipts other than tolls are miscellaneous. These amounted to Rs. 1,260 against Rs. 1,452 of the previous year.

MISCELLANEOUS.

55. The following statement shows the receipts on revenue account and working expenses of the canal for the last ten years:—

FINANCIAL RESULTS.

PARTICULARS.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Navigation ...	44,918	53,338	45,848	43,694	62,317	41,382	52,143	51,904	40,406	53,910
Miscellaneous ...	863	1,149	1,446	1,338	1,273	2,125	812	2,500	1,452	1,260
Total ...	45,781	54,487	47,294	45,032	63,590	43,507	52,455	54,404	41,858	55,170
Less refunds of revenue ...	...	...	...	...	...	...	...	918	...	73
Net total receipts ...	45,781	54,487	47,294	45,032	63,590	43,507	52,455	53,484	41,858	55,097
WORKING EXPENSES.										
DIRECT CHARGES.										
<i>I.—Works, maintenance and repairs.</i>										
Works ...	...	1,886	1,147	...	...	...	...	...	...	1,718
Repairs ...	30,667	17,015	18,331	20,460	32,904	26,863	34,009	11,988	47,028	50,920
Establishment, including direction and accounts ...	8,704	2,280	4,497	6,775	7,588	6,178	7,843	2,756	11,853	16,572
Tools and plant... ..	...	1,444	1,834	1,862	2,784	292	5,524	4,165	2,105	2,868
Total ...	39,461	22,654	25,809	37,897	48,266	33,332	45,406	18,899	61,888	72,078
<i>II.—Revenue management.</i>										
Navigation establishment ...	2,683	2,956	2,809	2,973	3,915	3,554	3,143	3,026	3,007	3,195
Total direct charges ...	42,284	25,610	28,618	40,870	46,581	36,886	48,609	21,925	64,895	75,273
Indirect charges ...	2,071	950	1,366	1,327	1,512	1,362	1,538	810	2,081	2,767
Total working expenses ...	44,355	26,560	29,984	41,897	48,093	38,248	50,147	22,735	66,976	78,040
Net revenue ...	1,426	27,927	17,310	3,135	15,497	5,259	2,308	30,756	(-)25,118	(-)22,943

The deficit in the year's working, notwithstanding a substantial increase of Rs. 13,239 in the receipts, was anticipated in the Chief Engineer's note of last year, where it was stated that of the charges incurred for the thorough clearing of the channels in 1887-88, a large sum would not be paid till the following year. The actual amount of these payments was Rs. 39,580. The influx of silt was largely due to the deterioration which has taken place in the condition of the Russulpore river, from which the canal was formerly supplied. Since the completion of the last silt clearance the feed has been exclusively taken in at the Huldee river, and it is hoped that another closure may not be found necessary for three seasons.

56. After the heavy rains at the end of August, the southern portion of the district of Midnapore was visited by floods of great severity, and the incapacity of the natural drainage channels to relieve the inundated tracts was investigated by a committee of enquiry. The brunt of the inundation fell on the tract of country adjoining range III of the Orissa coast canal. Regarding the Hidgellee canal, it appeared that though the drainage of parts of the affected area had been to some extent obstructed by it, yet this obstruction was not one of the main causes of the floods, and any injury so caused was more than counterbalanced by the enormous benefits conferred on landlords and ryots by the protective works constructed by Government. The defects in the arrangements for passing drainage water across the canals are now being remedied, and it is hoped that by the lowering of the bed, which is a feature in the recently-sanctioned scheme for remodelling the canal, complete facilities for drainage will be afforded. The damage done to the canal was not such as to require special expenditure beyond that provided in the regular maintenance estimates.

FLOODS.

SONE CANALS.

CAPITAL ACCOUNT. 57. The Capital, Interest and Revenue Accounts of these canals are given below:—

1.—CAPITAL ACCOUNT.

HEADS OF ACCOUNT.			Outlay during 1-88-89.	Outlay to end of 1888-89.
DIRECT CHARGES.			Rs.	Rs.
I.—Works	...	...	93,250	1,81,56,556
II.—Establishment	...	...	20,691	50,81,927
III.—Tools and plant	...	...	21,776	21,12,855
IV.—Suspense accounts	...	...	12,770	1,88,341
Loss by exchange	...	...	.....	52,240
Total	...	...	1,48,487	2,55,91,919
V.—Less receipts on Capital account	...	...	44	3,07,237
Net total direct charges	...	...	1,48,443	2,52,84,682
INDIRECT CHARGES.				
Capitalization of abatement of land revenue	...	...	.....	37,834
Leave and pension allowances	...	...	2,897	8,60,725
Total indirect charges	...	...	2,897	8,98,559

2.—INTEREST ACCOUNT.

INTEREST ACCOUNT.

		Rs.
Interest charges to end of 1887-88	...	1,25,23,888
Ditto for 1888-89	...	10,08,418
Total	...	1,35,32,306

3.—REVENUE ACCOUNT (actuals).

REVENUE ACCOUNT.

	EXPENDITURE			RECEIPTS	
	During 1888-89.	To end of 1888-89.		During 1888-89.	To end of 1888-89.
DIRECT CHARGES.	Rs.	Rs.		Rs.	Rs.
I.—Works, Maintenance and Repairs.					
Works (extensions and improvements)	10,426	15,958	Water-rates	7,59,556	68,75,460
Repairs	3,28,182	35,43,798	Navigation	57,829	6,77,467
Compensation	.....	2,463	Miscellaneous	26,504	4,36,466
Establishment, including direction and accounts	1,97,677	11,40,593	Total	8,43,889	79,89,393
Tools and plant	33,920	2,08,592			
Total	5,70,205	49,11,404			
II.—Revenue Management.			Less refunds of revenue	12,611	74,394
Irrigation establishment	1,58,249	13,23,848			
Navigation establishment	14,165	1,70,129	Net total receipts	8,31,278	79,14,999
Total	1,72,414	14,93,977			
Total direct charges	7,42,619	64,05,381			
INDIRECT CHARGES.*					
Capitalized abatement of land revenue	.....	.....	
Leave and pension allowances	51,813	3,85,940			
Total indirect charges	51,813	3,85,940			
Total working expenses	7,94,432	67,91,321			
Profit	36,846	11,23,678			
Total	8,31,278	79,14,999			

* These are now shown under the suggestion of the Government of India.

The expenditure on capital account during the year was Rs. 1,48,443. The principal works carried out were docks at Bedadi, Nasriganj, and Daodnugger; a warehouse at Bedadi, a syphon aqueduct at mile 10³/₄, Domraon Branch canal, and numerous permanent outlets in all divisions. The following works were all but completed at the close of the year:—Docks at Baroon Urwal, and Deegah; the Tejpoora distributary taking off from the Patna canal and the Bacheri drainage cut; Telegraph offices at Baroon, Nasriganj and Ugeon; the Rewah escape, and several minor works.

58. The income calculated on "Earnings" of the year and expenditure are shown below:—

EARNINGS.

EXPENDITURE.	Amount.	Earnings.	Amount.
	Rs.		Rs.
DIRECT CHARGES.			
<i>I.—Works, Maintenance and Repairs.</i>		Water-rates	8,05,790
Works (extensions and improvements)	10,426	Navigation	57,829
Repairs	3,28,182	Miscellaneous	26,504
Establishment, including direction and accounts	1,97,677	Total	8,90,123
Tools and plant	33,920	Less refunds of revenue	12,611
Total	5,70,205	Net total earnings	8,77,512
<i>II.—Revenue Management.</i>			
Irrigation establishment	1,58,249		
Navigation ditto	14,165		
Total	1,72,414		
Total direct charges	7,42,619		
INDIRECT CHARGES.			
Capitalized abatement of land revenue ... ..	.....	
Leave and pension allowances ..	51,813		
Total indirect charges	51,813		
Total working expenses	7,94,432		
Profit	83,080		
Total	8,77,512		

The water rates now shown as "earned" are the assessments on the irrigation of the year, and include for the first time those assessments which were not completed until after the close of the year.

59. The following table shows the lengths of canals and distributaries open and the areas commanded and irrigable:—

LENGTHS OF CANALS AND DISTRIBUTARIES.

DIVISION.	Navigable canals.	Branch canals.	Distributaries.	Gross area under command.	Maximum discharge of canal.	AREA WHICH CAN BE IRRIGATED.		
						Kharif.	Rabi.	Total.
	Miles.	Miles.	Miles.	Acres.	Cubic feet per second.	Acres.	Acres.	Acres.
Eastern Sone	66½	...	358	406,155	1,613	129,040	180,000	309,040
Arrah	74½	71½	467½	618,354	4,342	347,300	360,000	707,300
Buzar	58	77½	343	704,000				
Total	281	148½	1,169½	1,728,509	5,955	476,400	540,000	1,016,400

An addition of 1½ miles has been made to the length of distributaries during the year. There are, besides the distributaries included in the

above return, 14 miles of village channel maintained at the cost of Government in the Buxar Division. There is no change in the areas commanded and irrigable; the provision of parallel channels along part of the Buxar canal has, however, enabled land in their neighbourhood to be more easily and satisfactorily supplied with water, and will eventually result in some increase in the area under irrigation.

VILLAGE CHANNELS
AND OUTLETS.

60. The following table shows the progress made with village channels and outlets:—

DIVISION.				Total length of village channels completed.	Total number of temporary and permanent outlets.	Number of permanent outlets.
				Miles.	No.	No.
Eastern Sone	...	...	...	204½	2,083	320
Arrah	...	...	...	768½	2,330	737
Buxar	...	...	...	511½	984	274
Total, 1888-89				1,484½	5,397	1,331
Total, 1887-88				1,525	5,999	828

Of the village channels now in use, 185½ miles have been constructed by Government agency and 1,299 by villagers. The figures as regards channels constructed by villagers are only approximate, and the decrease in the total length is partially due to this cause; it is, however, mainly owing to the reduction in the number of outlets from 5,999 to 5,397, which has been accompanied by an increase in the area under irrigation. The construction of permanent outlets was pushed on during the year, 503 having been built in carefully chosen situations with a discharging capacity proportioned as nearly as possible to the area under lease or likely to be irrigated.

RAINFALL.

61. The following statements furnish the rainfall statistics of the Sone canal system and the distribution by canal divisions for the last five years:—

				AVERAGE OF 22 STATIONS.				
				1888-89.	1887-88.	1886-87.	1885-86.	1884-85.
				Inches.	Inches.	Inches.	Inches.	Inches.
Kharif season	...	August	...	18.49	9.48	11.73	16.69	9.09
	...	September	...	7.35	5.24	12.51	10.57	5.41
	...	October	...	0.18	4.18	8.33	0.34	3.50
	Total			26.02	18.90	32.57	27.60	18.00
Rabi season	...	November	...	0.46	...	0.23	...	...
	...	December	...	...	...	0.22	2.45	...
	...	January	...	1.22	1.09	1.47	0.10	0.55
	...	February	...	1.30	...	...	0.11	0.03
Total				2.98	1.09	1.92	2.66	0.58
Whole year				47.34	40.31	59.34	44.99	30.29

YEARS.	EASTERN SONE DIVISION.			ARRAH DIVISION.			BUXAR DIVISION.		
	Kharif season.	Rabi season.	Whole year.	Kharif season.	Rabi season.	Whole year.	Kharif season.	Rabi season.	Whole year.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
1888-89	23.72	2.86	46.39	25.14	2.35	46.46	24.87	2.22	45.24
1887-88	14.76	0.92	38.11	26.59	1.08	45.57	20.43	1.22	38.78
1886-87	34.69	1.73	62.34	26.40	1.53	62.30	25.46	1.85	51.06
1885-86	36.35	2.15	46.54	27.02	2.84	44.68	27.82	2.59	45.29
1884-85	17.11	0.40	36.27	18.84	0.54	31.63	20.96	0.03	31.87

The Superintending Engineer reports:—"The rainfall for the year (45.43 inches), average for all stations, over the area commanded by the Sone Canals was, it will be noted, considerably in excess of that which fell in the year preceding (40.18 inches), and it was also in excess of the average for 20 years (41.25

inches). The chief characteristics of the season, as regards rainfall, were—*First*, the late date at which the rains commenced. No rain fell at Arrah until the 2nd July, and the rains throughout the area irrigable may be said to have commenced on this date. *Secondly*, the favourable rainfall during July, August, and the first ten days of September. *Thirdly*, the almost entire cessation of the rains from the 11th of September to the 29th of November, the average fall over all canal stations for that period being 1.47 inches only. *Fourthly*, the wide variation in the falls at different stations ranging for the year from 39.03 inches at Sikroul to 52.07 inches at Nasrigunge. This variation had only a comparatively small effect on the area irrigated, as up to the 10th of September the rainfall may be said to have been generally favourable.”

62. The following statement shows the area leased and irrigated during the last four years :—

DESCRIPTION.	1888-89.		1887-88.		1886-87.		1885-86.	
	Leased.	Irrigated.	Leased.	Irrigated.	Leased.	Irrigated.	Leased.	Irrigated.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Five-year leases	200,275	200,102	210,335	210,164	194,419	194,556	173,829	179,784
Annual leases—								
Kharif	71,594	69,628	43,638	57,591	27,733	30,082	62,107	80,792
Rabi	61,119	69,817	16,738	27,511	16,639	16,662	31,764	50,610
Sugarcane	3,539	4,601	3,891	6,265	5,492	11,626	5,186	10,527
Hot-weather	9,035	11,762	9,313	13,855	8,519	15,278	6,117	10,867
Total annual leases	145,477	155,817	72,980	105,216	58,383	73,648	105,174	152,796
GRAND TOTAL	345,752	355,919	283,315	315,380	252,802	268,204	279,003	332,580
Percentage of leased to irrigated area	97.12		89.89		92.02		88.89	

The area irrigated was in excess of any year to date, except 1884-85, when the area irrigated was 370,661 acres. The area under annual leases during the kharif season exceeds the area irrigated. This is partly due to areas leased late in October, to which water could not be supplied in time to be of service, but mainly to the strenuous efforts which were made to confine the water within the leased areas. Unauthorized irrigation in the kharif season has practically disappeared.

It will be noticed that compared with the previous year there has been a decrease of 10,260 acres under five-years' lease. It is not to be inferred that there has been any reduction on the area actually irrigated. Applications for five-year leases for 15,050 acres were either declined by the Canal Officers or withdrawn, chiefly the former for reasons given in the extract from the Sub-Engineer's report quoted in the next succeeding paragraph.

The Sub-Engineer was given authority to cancel five-year leases with the result that no single application was declined, and leases for 1,456 acres only cancelled. This may be taken, with leases for 529 acres subsequently cancelled, as the full area on which the lessees were dissatisfied with their bargain.

Out of the 200,102 acres irrigated under five-years' lease, it is estimated that 154,825 acres, or 77.3 per cent., were cultivated under kharif; 27,408 acres, or 13.6 per cent., under rabi; and 17,869 acres, or 8.9 per cent., under sugarcane crops.

The statement below shows the area irrigated during the year and the two preceding, as well as 1884-85, the largest on record, classified by crops—

	1888-89.	1887-88.	Difference.	1886-87.	1884-85.
	Acres.	Acres.	Acres.	Acres.	Acres.
Kharif	224,453	220,428	+ 4,025	177,510	246,710
Rabi	97,225	66,090	+ 41,135	45,361	99,280
Sugarcane	22,469	25,007	- 2,538	30,065	23,682
Total	344,147	301,525	+ 42,622	252,926	369,702
Add—Hot-weather irrigation	11,762	13,855	- 2,093	15,278	959
Grand Total	355,909	315,380	+ 40,529	268,204	370,661

In 1887-88 there was a sharp demand for canal water during the kharif season checked by a copious fall of rain on the 13th October which had an important effect in limiting the area under rabi irrigation during that year. The year under review is perhaps more fitly comparable with 1884-85, in which 14,752 acres more were irrigated. The rainfall in 1888-89 was 45.43 inches for the year and 24.61 inches during the kharif season, the corresponding figures for 1884-85 being 30.26 inches and 18.00 inches; the period of great demand being during October in 1889 and during August and September in 1884.

63. The system pursued was not altogether the same. In 1884-85 but little attempt was made to restrict the supply of water to the area under lease, and irrigation previous to the issue of a permit was not rigorously suppressed, nor were the rules regarding the existence of proper village channels enforced. In 1888-89 the most strenuous efforts were made to prevent unauthorized irrigation, and generally to enforce the provisions of the law and rules. The procedure adopted is detailed in the extract from the Superintending Engineer's report quoted below:—

"Up to the middle of September the season, though the rains were late in commencing, was not unfavourable, but from the commencement of the *Hathia*, the 26th of September, rain was eagerly looked for, and none falling by the beginning of the *Chitra*, the 9th of October, the demand for canal water became urgent and pressing. Applications for permits poured in from all sides, and the greatest eagerness to irrigate leased areas was manifested.

"It had been determined at the beginning of the season to abstain from in any way pressing cultivators to enter into leases. Whilst every possible assistance was given, if desired, they were left to decide the matter entirely in accordance with their own view of their own interests. When applications were tendered, the size of outlet allowed was fixed as nearly as possible in accordance with the discharge required to irrigate the area proposed to be leased, so that unauthorized irrigation on any considerable scale would not be possible. It was explained that a *tatil* would be enforced. These measures were in some localities not popular, and several applications were in consequence not completed. Many applications for leases, five-year and annual, were refused until proper channels were provided, and altogether declined where there was doubt as to the supply of water available, or where the block proposed was such that unauthorized irrigation was certain to occur. These causes and the hope that holding off from applying for leases might induce Government to reduce the water-rates had considerable effect in lessening the area under lease when the urgent demand for water commenced about the 3rd of October. In many cases it was then too late; channels could not be provided in time, nor could water be given within the few days during which the crop could live without irrigation."

The area irrigated in October was in fact practically limited only by the quantity of water available, and the facilities which existed or could be improvised for leading it to the fields. From the 16th to the 25th of October, an average of 2,415 cubic feet of water per second were passed down the Arrah canal, which was designed to carry 1,660 cubic feet per second only. In 1884-85 the sharp demand occurred in August and September, so that the time during which irrigation could be usefully effected was more protracted, and under the same circumstances, the area irrigated in 1888-89 would probably have been in excess of the results of that year. Of the late irrigation about 5,000 acres reported as leased or irrigated chiefly in the Arrah Division could not be assessed on various grounds, and if the financial interests of the canals were the only consideration, there is little doubt that it would be best to refuse permits after the 20th of September. It is a matter for consideration whether under such circumstances previous payment in part at least should not be insisted on. The area noted above, having been decided not to have been irrigated in a legal sense, has been excluded from all the returns.

There was a general failure of the rains in Behar, so that it was considered desirable that an account of the kharif irrigation of the year for the Sone canals should be published at an early date for general information. A note on the subject was accordingly published in the *Calcutta Gazette* for the 9th January 1889.

The large increase in the rabi irrigation was chiefly due to there being no rain in October and November, though the reduction in rate of from Rs. 2.8 to Rs. 2 per acre for flow irrigation for the year only had some influence in inducing applications, the major part of which must in any case have been filed, as the ground was so dry that the seeds would not germinate without artificial irrigation.

64. Whatever difference of opinion may exist as to the procedure to be adopted as regards irrigation or the rates to be charged, the advantage reaped by the country generally from the Sone canals during 1888-89 is unquestionable, and the Superintending Engineer appears to have full justification for the observations made in the extract from his report which follows:—

"There can be no doubt as to the benefits the Sone canals conferred on the districts which they traverse during the year 1888-89. The failure of the rice crop outside the area commanded by the Sone canals was nearly complete; the aharas in which there was any water in the first week of October being few and far between. The situation was complicated by the necessity of blocking early in October four vents in the Dehra river sluices of the Sone weir. As narrated in an extract from a report on the kharif irrigation of the year, quoted in paragraph 4, this operation was carried out in 15 hours, during which time only was the supply of the canals partially shut off. There was at the time considerable sickness amongst the sectional officers, and substitutes, even inefficient, could not be procured. The brunt of the work fell on the Subdivisional officers, amongst whom were one European and three native upper subordinates, and sick or well, they threw themselves into the work with a vigour which in my opinion deserves the commendation of Government. The Divisional officers were no less energetic and self-sacrificing in directing operations. The result of the efforts made is generally admitted to have been successful. A pamphlet by a native gentleman, a pleader and landowner, in which a view, certainly not favourable to canal irrigation, is taken, thus speaks of the operations of the year:—'It is almost admitted that in the year under review the canal authorities have worked better in all the departments than in previous years. The supply of water was satisfactory, the prayers of the cultivators were attended to, and, generally speaking, the arrangements were good.' It is fair to say that he adds:—'In fact, the successful management of this year carries with itself condemnation of the system.' The main difference between the system adopted during the year and that previously in force was the determined effort made to prevent water being taken until permits had been granted. The supply of water was rigorously limited to the area leased, and criminal prosecutions instituted, wherever possible, when water was misappropriated. The system was somewhat relaxed after the 10th of October with decidedly unfavourable financial results to Government, but some benefit to the cultivators. It was remarked in last year's report that efforts were made to remove all well-founded grounds of complaint brought to light during the sittings of the Sone Canal Committee, and this policy was continued during the year. It is fully recognized that lasting contentment will only result by securing irrigating cultivators full crops, and that anything short of this standard will, whatever may be the measure of the benefits derived compared with the water-rates paid, lead to complaints which, though ill-founded, are to be avoided."

65. The areas actually irrigated in each of the executive divisions during the last five years are shown below:—

EASTERN SONE DIVISION.				AHRAN DIVISION.				BUXAR DIVISION.				TOTAL FOR ALL DIVISIONS.			
Annual leases.				Annual leases.				Annual leases.				Annual leases.			
Kharif and rabi.	Sugarcane and hot-weather.	Five-year leases.	Total.	Kharif and rabi.	Sugarcane and hot-weather.	Five-year leases.	Total.	Kharif and rabi.	Sugarcane and hot-weather.	Five-year leases.	Total.	Kharif and rabi.	Sugarcane and hot-weather.	Five-year leases.	Total.
Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
46,581	1,328	25,136	72,995	97,480	4,556	82,573	184,619	64,900	4,357	43,801	113,047	28,930	10,721	151,510	370,661
20,294	1,041	27,945	49,280	54,263	6,821	91,332	157,911	56,149	13,622	56,607	126,369	131,402	21,383	179,784	332,579
11,869	1,516	31,194	47,579	21,710	20,300	98,737	140,747	13,105	5,288	61,625	80,078	46,744	24,904	194,556	268,204
20,309	679	40,123	61,201	25,982	13,979	102,423	141,444	38,715	6,362	67,618	112,695	85,096	20,120	210,164	315,380
29,470	408	37,117	66,995	63,260	11,591	101,480	165,740	57,706	4,363	61,406	123,565	139,145	16,362	200,102	355,909

The reduction in the area under five-year lease is due as has been mentioned in paragraph 62 above to leases being refused where the channels were not in good order or the blocks unsuitable. In some cases applications were withdrawn, as the cultivators were unwilling to accept the outlets proposed which are now recorded in the permit.

The proportion of flow to lift irrigation for the last five years is shown below:—

	1888-89.		1887-88.		1886-87.		1885-86.		1884-85.	
	Flow.	Lift.	Flow.	Lift.	Flow.	Lift.	Flow.	Lift.	Flow.	Lift.
Proportion	93.4	6.5	95.2	4.8	96.5	3.5	95	5	95	7

DUTY OF WATER 66. The following statement shows the duty obtaining in the year under review and in the years 1887-88 and 1884-85:—

			Eastern Main Canal Series.	Arrah Canal System.	Boxar Canal System.	Western Main Canal Series.	Sone Canals.
1888-89	Kharif	{ Acres	55,559	120,758	70,605	191,353	246,922
		{ Duty on gross supply	49.4	68.7	80.1	71.8	65.2
	Rabi	{ Acres	15,547	47,165	56,982	104,147	119,694
		{ Duty on supply utilized	58.5	73.01	94.9	83.5	78.7
1887-88	Kharif	{ Acres	54,733	112,505	78,197	190,702	245,435
		{ Duty on gross supply	54.4	85.5	81.2	82.4	73.9
	Rabi	{ Acres	11,111	31,590	38,396	69,986	81,097
		{ Duty on supply utilized	43.9	65.9	84.9	75.09	68.5
1885-86	Kharif	{ Acres	39,532	1,21,441	80,661	205,102	244,634
		{ Duty on gross supply	45.4	88.7	97.0	93.6	79.9
	Rabi	{ Acres	12,324	44,916	47,371	92,317	104,641
		{ Duty on supply utilized	42.6	128.0	116.1	121.7	99.0
1884-85	Kharif	{ Acres	61,849	133,307	75,266	208,573	270,422
		{ Duty on gross supply	47.1	79.1	74.3	74.2	65.6
	Rabi	{ Acres	13,103	64,125	45,734	109,859	122,962
		{ Duty on supply utilized	37.2	142.5	157.7	148.4	112.6

N.B.—Sugarcane is included in both kharif and rabi.

As the year 1884-85 was that in which the largest area was irrigated, it has been selected for comparison in place of 1886-87, which was a year of such plentiful rainfall that as stated last year its results are not of much value as standards of comparison.

The main result for 1888-89 the duty in the kharif season for the Sone canals, 65.2 acres, per cubic foot per second of gross supply approaches very nearly to 65.6, the figures for 1884-85, although in the latter year the rainfall was much more favourable.

For a short base, ten days (11th to 20th October 1889) against fourteen days (29th September to 12th October 1887), the duty on the rice crop alone for the Sone canals falls to 42.3 acres in 1888-89, against 45 acres in 1887-88.

In the Arrah Division the quantity of canal water utilized in irrigation during the four months July to October is calculated by Mr. Inglis, Executive Engineer, Arrah Division, to be equivalent to 2.93 feet over the area watered in 1888-89, and 2.6 feet in 1887-88. Taking the drainage area, it is equivalent to 7.2 inches of rainfall of effective rainfall, against 5.7 inches in the previous year.

The Superintending Engineer gives the particulars tabulated below regarding some experiments carried out in the Arrah Division on the quantity of water used in irrigating definite areas from specified outlets:—

Distributary.	Size of outlet.	Number of days discharging.	Average discharge.	Area irrigated.	Area irrigated per cubic foot per second.	Date from which open.
Bichiaon	9" x 12"	11	2.8	54.15	2.76	2nd October 1888.
Kaithi	9" diam	11	2.37	45.6	1.74	6th August "
Kaithi	Same outlet	11	2.72	42.28	1.41	23rd Sept. "
Kaithi	6" diam.	12	1.09	21.0	1.6	Ditto "
Behua R. P. C.	15" x 18"	9	3.46	116.4	3.46	3rd October "

The results are discordant, and the omission of information as to the nature of the soil, the distance of the outlet from the block irrigated, the number of days elapsed since the last irrigation and since the last rainfall, and the extent of the latter in inches, &c, prevents any useful deductions being made. At the same time the experiments point to a direction in which much useful work can be done, as with a demand in the kharif season, which even now the canals are unable to meet it, is imperative that whilst a sufficient supply of water shall be allowed the utmost economy, which can only be effected at the outlet, should be practised.

The duty in the rabi season was slightly higher than in the previous year. The matter is not of practical importance, as the area of rabi crops irrigated did not nearly approach that for which water was available.

67. The results of experiments carried out by canal officers on the outturn of crops irrigated by canals and otherwise have been noticed in former reports. The evidence given before the Sone Canals Committee showed that the value of these experiments was questioned, and accordingly in 1888-89 the matter received more than ordinary care. The extract from the Superintending Engineer's report quoted below deals with the difficulties experienced in obtaining comparative results, and narrates the course pursued during the year under review:—

CROP EXPERI-
MENTS.

"Former reports have compared the yield of crops irrigated by the canals and those matured without their aid. It has always been recognized that crop experiments, whilst valuable as showing the quantities of grain and straw produced in each case, could not be relied on as an absolute test of the producing power of the land under canal and non-canal irrigation. It was not possible to select plots cultivated under precisely similar conditions, differing only in the means of irrigation employed, and in many parts of the country it was difficult to find rice crops not under canal irrigation. Again, it had been asserted before the Sone Canals Committee that not only was the crop produced by the aid of canal water inferior, but that the longer the land was irrigated, the less the produce became. Complaints were also made that the experiments were not conducted under conditions where the public could have the opportunity of being present and watching the process. Independently of the circumstances of the year, it had been determined to confine the experiment for the most part to canal-irrigated crops, and, as a matter of fact, no other course would have been possible, as rice crop over the area commanded failed where canal irrigation was not available.

"The services of a Covenanted Civilian were placed at the disposal of the Public Works Department, so that the result of a series of experiments carried out by an officer not belonging to the Canal Department might be recorded. The co-operation of Messrs. Burrows, Thomson and Mylne, who have always been ready to assist, in every way, the officers of the Irrigation Department, was solicited, and the Collectors of the districts concerned asked to instruct Subdivisional Magistrates to themselves make a few experiments if possible. In the case of experiments carried out by canal officers, the nearest Magistrates, as well as zemindars and ryots, were asked to be present. The publicity thus given to the experiments did not, in all cases, meet with the approval of the cultivators, who would have preferred the matter to have remained a subject of controversy. The instructions issued were to the effect that the crops experimented on should be good crops, and that the weighment should take place on the field."

The results of the experiments are given in the table which follows, which is abstracted from the figures contained in Mr. Lusson's report:—

Crop.	Name of officer conducting experiments.	Number of experiments.	Average yield, dhan.		Number of experiments.	Average yield, straw.	
			Mds.	s.		Mds.	s.
Transplanted ...	Mr. H. Lusson, c.s. ...	25	33	39 $\frac{1}{2}$ $\frac{3}{4}$	25	47	17 $\frac{1}{2}$ $\frac{1}{4}$
Aghani dhan ...	Messrs Burrows, Thomson, and Mylne ...	26	31	5 $\frac{1}{2}$ $\frac{1}{4}$	26	52	22 $\frac{2}{3}$ $\frac{1}{3}$
	Canal Subdivisional Officers ...	33	35	6 $\frac{3}{4}$ $\frac{1}{4}$	31	68	14 $\frac{1}{8}$ $\frac{1}{8}$
	Canal subordinates ...	138	31	30 $\frac{1}{138}$ $\frac{7}{8}$	134	55	38 $\frac{1}{18}$ $\frac{1}{18}$
Kartika dhan...	Mr. H. Lusson, c.s. ...	3	35	1 $\frac{1}{2}$	3	46	36 $\frac{4}{5}$ $\frac{4}{5}$
	Messrs. Burrows, Thomson, and Mylne ...	25	26	37 $\frac{7}{24}$ $\frac{1}{4}$	25	46	5 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$
	Mr. G. C. Maconchy, c.e. ...	2	31	4 $\frac{1}{8}$	2	56	29 $\frac{1}{8}$ $\frac{1}{8}$
	Subordinate, Agiaon ...	1	14	19 $\frac{1}{8}$	1	33	6
Broadcast dhan	Mr. H. Lusson, c.s. ...	2	22	22	2	31	22 $\frac{6}{8}$ $\frac{6}{8}$
	Messrs Burrows, Thomson, and Mylne ...	1	23	14	1	36	32
	Canal Subdivisional Officers ...	3	37	11 $\frac{1}{8}$ $\frac{1}{8}$	1	54	0
	Canal subordinates ...	2	33	7 $\frac{1}{8}$	2	39	13 $\frac{1}{8}$ $\frac{1}{8}$
	Average ...	261	31	32 $\frac{9}{16}$ $\frac{9}{16}$	253	54	32 $\frac{1}{4}$ $\frac{1}{4}$

The figures given above are not the actual weighments, but the weighments reduced by one-twelfth in the case of dhan and one-third in the case of straw in those cases where the crop was weighed wet on the field, this representing the loss which Mr. Lusson found by actual experiment to occur in drying.

It must not be forgotten that the experiments were not on the yield of average crops, which were those selected in former years, but of the yield of the best crops. Mr. Lusson, however, states that after a personal inspection of